

RECREATION

— April 1940 —

NATURE RECREATION

Nature Experiences for All

By Reynold E. Carlson

Recreation in the National Forests

By John Sieker

The Nature Program at Our Camp

By Fay Welch

Perspective in the National Park Affairs

By Carl P. Russell

A New Emphasis for Playground Nature Programs

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You Remember

YOU remember the watercress you found yourself by the stream, the chestnuts, hickory nuts, walnuts, butternuts, the tiny beechnuts you gathered in the fall after the frosts, the sassafras root, the blueberries, the elderberries, the wild gooseberries with their thorns.

You remember the smells—in the woods, in the swamps, in the pasture, by the seashore, where the wild roses grew, or the little island just thick with violets, the smell of the clam bake, the smell of the woods fire, the smell of the bayberry you ground up in your hands.

You remember the nice feel of the road dust on your bare feet, the good old "squish" of the mud between your toes, wading in the creek at recess, catching tadpoles to be watched as they grew up, turning over stones to find what lived underneath, wading out into the ocean, the first joy of swimming in the ocean, of giving yourself entirely to the water.

You remember—if you lived away from the mountains—the first climbs, the delight of finding the springs you could drink from, coming on the deer, watching them bound away from you, getting above the timber line, above the clouds, and when the sky cleared, looking for miles and miles.

You remember always the birds, the trees you climbed as a boy to study their nests, the pheasants flying up, perhaps the wild turkeys, the dozen or so little Bob White following their mother on the ground, one behind the other, yet never walking in a straight line, the tiny humming birds always coming to the same place by the side of the porch.

You remember many sounds—the sound of the sea when the ocean is calm, the sound of the sea in the winter storms on a rocky coast, the lapping of the lake water at your camp as you wake in the morning, the sound of the wind in the trees, the cry of the loon on the lake, the sound of the rushing mountain stream, the roar of the great falls, the sounds of myriads of insects, the sound of the "jug-ger-rum."

You remember the sight of the first flowers, the wheat just coming out of the ground, when the trees leaf out in the spring, when the leaves have their best color in the fall, when the first snow storm comes, certain sunsets over the ocean or over the lakes that were unbelievable.

You like now to remember that much of our land and water and its sights and sounds and beauty withal belong to all the people—deeded to them forever and forever.

Howard Brancher

April



Courtesy Essex County, N. J., Park Commission

Nature Experiences for All

AS SUMMER approaches, millions of Americans will plan their vacations to the mountains and seashores. Many are fugitives from offices, factories, kitchens, and schools. Some will hike, fish, swim, or engage in the many other vigorous outdoor pursuits; some will read, botanize, or participate in other less strenuous activities; some will merely wish to lie in the sun, or enjoy the beauty of countryside from the hammock or the car window.

But not only during vacations are there possibilities for enjoying nature. Throughout the year in many places and in many forms, are being offered through organized means, pleasing experiences that bring man into closer contact with the natural physical world and help him enjoy and understand that world.

As old as man himself are the satisfactions he derives from his experiences with nature. Yet modern commercial and industrial life has denied him the opportunity to satisfy some of his urges to live close to the earth—to plant, to harvest, to explore, to hunt, to fish, to enjoy the songs of birds and the beauty of trees.

In a hundred years America has changed from a land of a few cities, many small towns, and a large rural population to a country in which almost sixty per cent of our people live in cities of 2,500 population or more. As our cities have increased in size, the opportunities for outing experiences have decreased in number. Today, therefore, to reestablish man's contact with his natural environment, it has become necessary for opportunities to be offered by society through its governmental and private agencies.

The reasons for the providing of nature experiences are many and varied. The educator sees, in offering such experiences, that they are a key to the understanding of the rules of the universe, basic to life itself. To the conservationist, learning about nature has value in

As old as man himself are the satisfactions he derives from his experiences with nature

By REYNOLD E. CARLSON
National Recreation Association

that it holds at least one of the keys for the conserving of the resources that have been so thoughtlessly exploited by past generations. To children and adults, the reason for participating in nature experiences lies in the resulting increased zest in

living and new appreciations of the beauty to be found in yard, park, or countryside.

America has gone far to preserve or provide the places for the enjoyment of nature. Our National Park Service has set aside some of the finest examples of scenic beauty for the enjoyment of all the people. The U. S. Forest Service has made its great forest areas available for the recreation of millions. Our states have followed these examples with their parks, forests, and reserves. Counties and cities have provided many places where natural beauty may be found and enjoyed. New parks and preserves are being established continually, and few people there are in America who do not have, somewhere near at hand, one of these areas.

But along with the acquisition and the development of places for outdoor recreation, there has been a definite need also to help people understand and appreciate what these places mean. It is often discouraging to find individuals without the background to appreciate and without any conception of the possibilities for recreation that are offered in these areas. It is to the end that more people may develop the understanding necessary for the appreciation of these areas and of the whole physical world around them that efforts are being made in so many quarters to develop programs that will provide concrete nature experi-

ences. This does not mean that a knowledge of botany is necessary to enjoy the beauty of a park, or a course in ornithology to appreciate the beauty of bird song; but it does mean that for many, at least, familiarity with their surroundings is necessary to the highest enjoyment of the world in

Readers of Recreation will recall that our request for material for a special issue of the magazine on Co-Recreation met with such enthusiastic response that it was necessary to devote two issues to the subject and to publish some additional articles in a later number. Our experience with regard to a special issue on Nature Recreation is proving similar. So many interesting articles have been received that it will be necessary to publish a number of them at a later date.



Photo by R. E. Carlson

which they live. A brief summary of the programs will indicate the variety and extent to which efforts are now being made to provide nature experiences through government and private organizations.

For many years our American schools, both public and private, have included as a part of their curriculum courses in elementary science and nature. Much of the material, particularly in the elementary and junior high school levels, has had as one of its objectives the development of an appreciation of the physical world in which we live. In many cases students have been made aware of the possibilities of nature hobbies. Many schools have tried to provide real experiences with nature rather than mere book learning. During recent years there has been a real effort to provide training for teachers through summer courses at camps that give teachers themselves some of the first-hand outdoor experiences so much needed to make nature courses vital to children.

Museums, zoos, botanical gardens, and other scientific institutions are all organized to aid in the appreciation of nature. During recent years there has been a definite trend toward the development of educational programs for young and old in these institutions. Classes are organized, displays made meaningful through interpretation in language that the general public can understand, publications issued, hobby clubs sponsored,

The national parks and forests belong to all. In order that more individuals may have an appreciation of their aesthetic and recreational values, many efforts are being made to promote programs which will provide concrete nature experiences.

field trips and other outings conducted. The tremendous growth of the children's museum idea during the last few years is another indication of the possibilities of these organizations to contribute much to the enjoyment of our physical world.

ment of our physical world.

Organized camps, public and private, are efforts to provide outing experiences for their members. In many cases they have well-developed nature programs, most camp leaders recognizing that these are the most logical types of activities for children in the outdoor setting in which organized camps are located.

From coast to coast are hundreds of hiking clubs, ranging from groups of eight or ten people to the large regional organizations such as the Appalachian Trail Conference of the east, or the Sierra Club of the west. Many of these large organizations have adopted some region of America as their particular province and have expended their efforts to keep regions in a primitive condition, to provide and maintain trails, to organize outings for their members as well as to educate their own groups and the country at large on the values and joys of hiking. Many of these hiking organizations, large and small, are also interested in natural history. They publish pamphlets on the natural history of their own province. Their

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Dr. John H. Finley

JOHN HUSTON FINLEY lived himself and very much wanted all others to live. For him every hour of life was adventure, adventure of the spirit, adventure in imagination.

Warmly human himself, he imparted warmth and depth and richness of life to those about him. No one exceeded him in gifts of friendship. The world became a more friendly place when he came into the room.

John H. Finley belonged to the National Recreation Association before it was formed. The purpose to which it was devoted was his purpose—that children might have their rightful heritage of play, that all might have a permanently satisfying use of leisure.

Dr. Finley liked to read of the new Jerusalem and of the children playing in the streets thereof. But, he asked, why not give children in our cities a real chance to play here and now. If the heaven of men's dreams is to have music and dancing and poetry—why not let joy express itself now. He wanted even the blind to see and feel the beauty of the world.

From 1913 to 1940 a member of the Board of Directors, from 1922 to 1937 First Vice-President, from 1937 President, Dr. Finley gave himself wholeheartedly to the movement that was so much a part of his own life. He spoke for it, presided with rare charm at the Recreation Congresses, raised money for the Association, placed his prestige and his great influence back of the entire recreation movement. There was no other quite like him. Not soon shall we see his equal. We record with deep gratitude a little of what his life and work meant to the National Recreation Association and to us personally. We shall ever think of him with affection.

From the Minutes of the Board of Directors of the
National Recreation Association, March 13, 1940



"Here Comes the Traveling Museum"

"**H**ERE COMES the traveling museum" were happy words to the ears of most of our children, and of adults as well, on all of our thirty-two Reading playgrounds. And the museum was only one of the many features of our nature lore program during the past summer.

When planning the program for the 1939 season it was decided to emphasize natural history—"nature lore" to the children. At that time it was a question as to how some of the playgrounds would react to this type of instruction. Heretofore, nature lore had been just another one of those activities which the individual leaders on each playground were to teach their children. If the leader were interested or knew a little something about the subject, he would discuss it with the children. If, however, he knew nothing about snakes, birds, insects, or anything else that might be of interest to the children, nature lore was never mentioned from the beginning to the end of the season.

In order to make sure that this would not occur last year, a nature specialist or supervisor of nature lore was employed, and it became my duty to visit each playground several times during the season.

By **EARL LORAH**
Supervisor of Nature Lore
Department of Public Recreation
Reading, Pennsylvania

Saturday Hikes

The first thing to be done was to arrange a schedule so that the various leaders would know exactly when the traveling museum was to pay a visit and could pass this information on to the rest of the playground by means of an attractive notice on their bulletin boards. According to our schedule I was to visit four playgrounds five days a week, allowing Saturday for all-day hikes. The smaller playgrounds were visited in the morning while the larger ones received afternoon visits. This meant that each playground was visited about every ten days. An example of a typical day's schedule would be:

A. M. 9:45-10:45	Amanda Stout
11:00-12:00	10th and Chestnut
P. M. 2:00-3:15	Baer Park
3:30-5:00	Glenside

We discovered from this schedule that Saturday was not the best day to hold our hikes, for there were too many other things going on. Each week these hikes were held in different localities, thus making it more convenient for playground attendants within a certain district. However, all thirty-two playgrounds were visited every week. The hikes began at 9:00 A. M. and ended any-

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Perspective in National Park Affairs

By CARL P. RUSSELL

WHEN AT THAT Yellowstone Campfire of 1870, Cornelius Hedges opined, "This wonderland should be preserved as a public pleasuring ground," he probably sensed something of the cultural usefulness of those amazing values with which nature endows the upper Yellowstone country. His historic recommendation opened the campaign which resulted in the creation of our first national park and, incidentally, was the beginning of a movement which has spread to most of the civilized world.

Probably the wonders of the Yellowstone were not regarded by Mr. Hedges and his contemporaries as especially representative of a national expression; on the contrary, the geyser activity and the weird beauties of the Grand Canyon of the Yellowstone struck those Montana pioneers as being absolutely foreign to anything in their previous experience. It was, perhaps, this curious and spectacular character, principally in the sense of its freakishness rather than for its full cultural significance, that prompted the members of the Washburn-Langford-Doane party and their friends to work with such determination to create of the area a national reservation to which rich and poor alike should have access.

Twenty years later, when Yosemite, Sequoia, and General Grant were made national parks, the trend toward public recognition of "distinctive" American scenes was well established; and through the succeeding decades "superlative" and "unique" were regarded as necessary adjectives in legislation enacted in creating Mount Rainier, Crater Lake, Mesa Verde, Glacier, Rocky Mountain, and some others of the earlier national parks.

To most of the pioneer workers who directed their energies to the creation of national parks, and to the great majority of national park visitors who entered the first parks, the unusual scenic qualities of the reservations were sufficient unto themselves. Few people thought of the areas as being expressive of the American message, and very few indeed demanded scientific explanation of the natural features that had been preserved.

Mr. Russell, who is Supervisor of Research and Information, National Park Service, has given us in this article a most illuminating exposition of the trends in the Service, and of objectives and methods, particularly as they relate to education and interpretation.

Gradually a changed attitude of the public mind came about, and visitor interest was no longer satisfied by the knowledge that the Upper Yosemite Fall is the highest free leaping waterfall in the world, or that Mount Rainier's glaciers constitute the largest accessible

single peak glacier system in the United States proper. Insistent questions were raised concerning the meaning of park phenomena, and the National Park Service busied itself in establishing facts and devising means of making information available.

Educational Values Are Realized

Thus it became apparent that an important educational aspect was to be found in the public enjoyment of the national parks; that scenic and scientific appreciation, historical mindedness and national patriotism might be intensified through their use. A definite educational program was established within the formal set-up of the Service. Concurrently with the growth of the program of research and interpretation, there was developing both within the National Park Service and among national parks enthusiasts outside of the Service, a new concept of the scope of national park opportunities.

Twenty years ago the American Civic Association in its Park Primer defined a national park as "an area, usually of some magnitude, distinguished by scenic, scientific, historic or archeological attractions and natural wonders and beauties which are distinctly *national* in importance and interest, selected as eminent examples of scenic, scientific, or historic America, and preserved with characteristic natural scenery, wildlife and historic or archeological heritage, in an unimpaired state, as a part of a national park system for the use and enjoyment of this and future generations."

Soon after this definition was published, the Camp Fire Club of America enlisted the interest of all conservation groups in analyzing the principles and methods governing the creation and administration of national parks. In 1929 the Camp Fire Club published "standards" in this

connection which were endorsed by various associations and recognized in principle by the National Park Service. These national park standards stressed the idea that scientific, educational, and inspirational values should dictate the major uses of the areas.

In 1930 a significant acquisition was made when Colonial National Historical Park and George Washington Birthplace National Monument were established. This was the occasion for the planning of a serious program of historic conservation. In 1931 a staff of historians was employed, and the Service entered into the specialized work of administering historic areas. The War Department transferred fifty-nine historic areas to the National Park Service in 1933, and passage of the Historic Sites Act of 1935 made the Service responsible for a nation-wide movement to conserve all important historic and archeologic sites.

In 1937 ideas on the future national park system had crystallized further, and the Service gave definition to its policy on acquisition of new areas. In the *Congressional Record*—Appendix of January 24, 1938, pp. 1375-76—Congressman J. W. Robinson of Utah published this policy as contained in an address by Director Cammerer. Here the Service declares its intention to secure for public use those areas that are of more value nationally for recreation and inspiration than for any other use, to acquire nationally important prehistoric and historic sites, outstanding stretches of the ocean beaches, the most instructive geological phenomena, the finest representative examples of native plant and animal associations, and a system of nationally important scenic and historic parkways. In other words, the Service committed itself to a policy of preserving, and presenting by striking examples, the comprehensive and varied story of earth forces and the progress of civilization in this country.

The Movement Grows

From the standpoint of scope, the national park stories by areas now connect and constitute expression of much that is essentially American. Because the program is not limited to "primeval" areas, it does represent an expansion of the national park idea of 1870. For thirty years after the creation of Yellowstone National Park, the conception (if any) of a

national park system was one in which "incomparable scenic grandeur" constituted the controlling qualification.

National monuments characterized by values other than scenic grandeur first came into the picture in 1906, when An Act for the Preservation of American Antiquities authorized the President of the United States to declare by public proclamation significant areas situated upon lands owned by the government to be national reservations. Caves, canyons, natural bridges, fossil deposits, volcanic manifestations, samples of desert flora, a forest of redwoods, battlefields and other historic sites, and variety of archeological treasures were among the first units that had been collected under the Antiquities Act when the National Park Service was established in 1916.

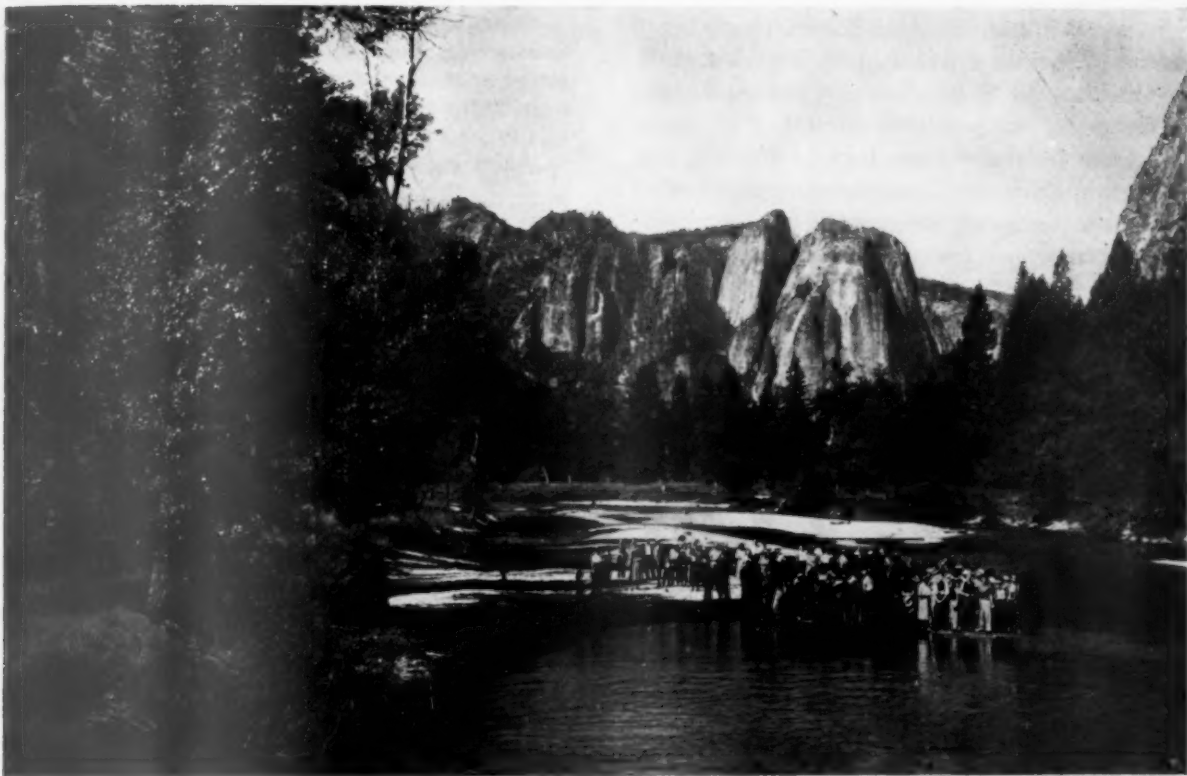
This collection continued to grow during the early years of organized effort of the National Park Service under Stephen T. Mather. Gradually it became apparent to all workers in the field of national parks activity that a wealth of recreational and inspirational values existed in many sections of the country and that the process of acquiring them should be selective rather than collective. The national park yardstick of the pioneers could no longer be used in measuring the several new classes of areas which the public mind had created.

Questions Arise

With that realization came some questions and protests. Overlooking the fact that thirty-four miscellaneous areas, many of historic and prehistoric significance, had already been brought into the system at the time that the National Park Service was formed, some conscientious friends of the parks offered formal objections and organized campaigns designed to change the course of events. They argued: "Keep national parks always a system of natural masterpieces; admit to the system no new park or addition that will depreciate its meaning."

The question of *meaning* can be found behind nearly all of the arguments. Some of the protests originated with energetic workers who had already contributed much toward the founding of the national park system. In most cases, the objectors did not show a good sense of direc-

"In its attempts to meet its opportunities, the National Park Service has provided a mechanism whereby an appealing and understandable picture of things American can be placed before a representative cross section of the American population. Probably we are not placing too high an appraisal upon the value of this Service when we refer to it as 'one of the most potent agencies in field education that has been conceived by any nation.'"



Courtesy U. S. Forest Service

tion in debating their questions.

One of the notable organizations that opposed the expanding national park programs observed in 1933 that Mesa Verde National Park is a "casual creation of local pride established before a national consciousness of the great system (of national parks) crystallized." In passing such judgment on this, one of the Nation's greatest archeological treasures, the protesting organization indicates that it is willing to stop with scenic areas in shaping a national parks program. It is, I think, an opinion that limits the "meaning" of national parks to very restricted sociological bounds.

Most conservationists now agree that it should be the purpose of the Nation to select and preserve, while it is still possible to get them, those areas of national significance which give expression to all things American. Great archeological relics are not less distinctly national in importance and interest than are the granite cliffs of Yosemite or the abysmal depths of the Grand Canyon of the Colorado.

A review of the debates on the policy affecting the scope of the National Park Service program

The park visitor's eyes are opened to some of the meanings of the trailside when ranger-naturalists escort parties to the significant exhibits of the out of doors.

indicates that most of the differences of opinion grew out of differences in views as to what constitutes a national parks objective.

As a result of much mulling over of ideas and definite public action in the matter, the government now embraces the opportunity to preserve and interpret the broad American story in all of its varied aspects. The expanded program may well be accepted as the ideal of Stephen Mather, who visualized a broad park concept "to provide a new form of land use, humanly satisfying, economically justifiable, and with far-reaching social implications."

Interpretative Work Is Initiated

Among the social implications there looms that undertaking in unique educational methods which for twenty years has contributed to the public enjoyment and understanding of the distinctive features of National Park Service areas. In 1920 interpretative work was started in Yosemite, Yellowstone, and Mesa Verde. Guided trips, lectures, and a special exhibits service found immediate response from park visitors, and the work spread in a year or two to include Glacier National Park, Grand Canyon, Mount Rainier, Rocky Mountain,

Zion and Sequoia National Parks. By 1923 a central office was established in Berkeley, California, from which to direct the new program, and in 1924 a fairly general interest of educators throughout the country was focused upon the new techniques which were demonstrating their effectiveness in promoting the cause of conservation.

The American Association of Museums recognized the possibilities of applying museum methods in interpreting the vast story told by the natural and historic exhibits in the park areas. In 1924 the Association organized to investigate ways and means of establishing an adequate museum program within the National Park Service. With funds provided by the Laura Spelman Rockefeller Memorial, some of the first adequate and permanent museums in national parks were built in 1925-33 under the guidance of the American Association of Museums.

This initial work in museum planning and construction laid the foundation for the existing museum program which with the support of government funds now includes central museums, focal point museums, historic house museums, restorations, trailside exhibits, and exhibits in place in most of the 155 areas of the Federal park system. Because central museums in the national parks provide offices, laboratories, and libraries for the educational personnel, and contact stations for park visitors, the museum program has become the center of the interpretative work in the parks.

In order that the growing program of research and interpretation might be well balanced in its development, the Secretary of the Interior in 1928 appointed a committee of nationally known educators to study its possibilities and define its policy. Acting upon the recommendations of this committee, the National Park Service on July 1, 1930, established a Branch of Research and Education, now called the Branch of Research and Information, to coordinate the various phases of research and interpretative work. In reviewing objectives and policy of the Branch we find this significant recommendation made in 1929 by the Committee on Educational Problems:

Any plan involving assistance to the visitor must include an examination of the attitude of the park visitor to what is presented. We are not concerned merely with the fact that many things may be large or wide or deep

or highly colored or have an interesting evolutionary development. From the point of view of the visitor, we are interested in their meaning to him in terms of his most fundamental thinking, and their significance in relation to his everyday life.

Following this thought, the National Park Service in all of its public contact work attempted to use its opportunities to give emphasis to the human value of the natural exhibits of the parks, an emphasis that strives to advance understanding and appreciation of the natural phenomena and human history of the Service areas. Nearly five million citizens availed themselves of the lectures, guided trips, and museum services of the national parks during the twelve months just passed. It becomes more evident each year that in this Service is one of the very potent forces now working in the cause of conservation.

From the inception of the idea of an interpretative program, it was obvious to all workers that naturalists and historians engaged in planning and conducting the work must be provided with organized information relating to the features that they were to interpret. A research program was organized. Cooperation on special problems was obtained from the National Museum, the Biological Survey, the Geological Survey, the Bureau of Fisheries, and from many universities and museums.

Research Specialists Are Enlisted

In addition to investigations conducted by outside agencies, the Service established small staffs of research specialists in forestry, wildlife, geology, history, archeology, and the general field of museum work. The attitude of the Service toward its research program is reflected in the recommendation made by national park superintendents in conference at Santa Fe, New Mexico, October, 1939:

The interpretation of natural and human history in national park areas is recognized as a primary objective. The basis of such interpretation should be organized research. A sense of balance must exist in arranging research and interpretative functions, and the role of research, generally, in the National Park Service program should be re-examined. National Park Service problems are national in scope relating to physical, biological, and human values inherent in some of the most perishable of Federal possessions. They pertain to mental health, constructive living, social traditions, enjoyment of life, and other basic matters bearing on the

"The purpose of educational work in parks is to interpret park phenomena and history and engender a desire in the visitor to think, read, and talk about the park offerings, both while he is in the park and after he has returned to his work-a-day routine."

health, education, recreation and psychology of America's population. The National Park Service is most advantageously situated to develop a national perspective in ethnology, history, wildlife, and aesthetic appreciation of scenery.

Six geologists, eight wildlife technicians, (Biological Survey), and about two hundred museum workers are now employed. Thirty-four park naturalists and assistants are located in national parks and national monuments. During the season of heavy tourist travel the naturalist staff is enlarged by the employment of temporary ranger naturalists, about one hundred of whom are appointed each summer. These men appearing on lecture platforms, behind information desks, or leading groups organized to hike into the forests or to the high country above them interpret the stories told by the natural exhibits of the outdoors.

Perhaps the park visitor exposed to this kind of teaching does not retain all of the information delivered by the naturalist, but his eyes are opened to some of the meanings of the trailside and he has had a glimpse of the great natural processes behind the national parks story. Simplicity in translating the story is a constant aim. A Harvard geologist once remarked while examining the geo-chemistry exhibits in the Norris Museum, Yellowstone, that the interpretations were "naive." His evaluation was accepted as complimentary. Except for self-conscious intellectuals, few people object to simplicity in science.

A great problem is to find those scientists who have the ability to present science in simple graphic manner. The ranger naturalist is selected on the basis of his scholarship, but in his work with park visitors he must distinguish between the public mind and the scientific mind. His presentation of a story must be made with clarity and force, but the technical expressions of the scholar, scientist or historian are reserved for display before professionals and are not inserted into the popular interpretations offered park visitors.

The Merced Lake High Sierra Camp, Yosemite National Park

The Pageant of American History

Within the 155 areas now reserved by the National Park Service, or in those proposed for acquisition, the pageant of American history unrolls like a lasting cinema. Archeology and ethnology find some representation, especially in the areas of the southwest, where the exhibits run the gamut from the dwellings of a people who lived a thousand years ago to the camps and pueblos of the modern Indian. In the field of geology, the national parks and monuments constitute a natural textbook. The pages of that book are widely separated and scattered, but the automobile and good roads overcome the difficulties of distance. Many colleges and universities take geology classes to these out-door laboratories. The existing Federal areas do not constitute as fine and complete a series of geological exhibits as might be desired. The story of earth forces in the United States must still be defined and a survey completed to locate more of the significant areas. Then selection should be made to complete a coherent system of parks and monuments which will exemplify the major themes of American geology. Just as sound conclusions can be drawn as to the relative values of geological areas after a comprehensive survey has been made, so should a broad review of the ecology of the country precede the selection of biological areas. The park system is

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Photo and copyright by Fay Welch

The Nature Program at Our Camp

By FAY WELCH

A VERY IMPORTANT phase of our Tanager Lodge nature program preceded by many months the first opening of camp. During the years when we were seeking a camp site, many an otherwise attractive spot was passed by because it did not provide the rich, stimulating environment that we desired. Finally a point on the western shore of one of our Adirondack lakes was selected. This point, except for an open, grassy acre near its tip, was covered with an attractive growth of canoe birches, pines, spruces, balsam firs and red maples. Around the bays on either side were tracks of deer, fox, raccoon, mink and muskrat, while farther back were black ash for packbaskets and enough tipi poles to supply the Six Nations. Mosses and wild flowers, among them several orchids, carpeted the forest floor, and the rocky cliffs across the bay had received special mention in the geological report of the region. Speckled, brown, rainbow and lake trout as well as a half dozen other species of fish inhabited the lake. A mile away near the inlet was a fascinating marsh alive with birds, frogs and other wild life. Across the lake, mountains rose to an elevation of almost four thousand feet, while a few miles to the north the ridges subsided into a rich, agricultural plateau that fell away rapidly to the St. Lawrence Valley.

Environmental Influences

The tremendous importance of this natural environment on the lives of our campers during the following years is impossible to evaluate. Let us note briefly, however, a half

dozen ways in which it affected camp fifteen years later—last summer.

One morning, early in the season, we looked out from the breakfast table to see a beaver swimming by the end of the dock. Raccoons were our almost nightly visitors, leaving dust tracks along the trails, raiding tents, peering curiously at campers by firelight or at early dawn, and on a few rare occasions even coming close enough to accept food from the motionless hand of some very calm and patient human. In early summer a flock of young Canada geese wheeled over our point and alighted on the bay. Several campers experienced the thrill of having wild birds take food from their hands. A few minutes of silent paddling would take us almost any evening to places where deer were splashing and feeding in the marsh, while muskrats hurried from one reedy point to another. Swimming out of the fog to meet us as we came down to breakfast in late August, a young buck landed on the point seeking sanctuary from the dogs on the far side of the lake. At night we had the stirring loon chorus, the mysterious hooting of the barred and great horned owls, and the occasional wild yapp of a red fox. Dawn was ushered in by booming of the bittern from the marshland and the nearby chorus of purple finches, least fly catchers, thrushes, robins and song sparrows.

There was a special expedition to the swamp in search of a black ash of proper growth and grain. Finally a suitable log was found, carried in and peeled. Splints

Mr. Welch, who gives us this interesting description of a nature program at camp, is Director of Tanager Lodge Camp in the Adirondacks, and Special Lecturer in Recreation at the New York State College of Forestry, Syracuse University.

were pounded out and soon a pack basket was taking form. Fire-by-friction sets were made, paddles, bows, arrows, lacrosse sticks, paper knives, book ends, balsam bough beds, birch bark boxes of many shapes and sizes decorated with porcupine quills. Other summers bridges, towers, boats, docks and log cabins had been built.

The Staff

But an environment rich in natural resources by no means insures rich nature experiences for our campers. In fact, many of us may have been discouraged to discover to what an extent individuals can be repeatedly exposed to nature and yet remain almost entirely oblivious to it. There are people who bring with them out of doors such a nimbus of city-bred interests that they stalk blindly by all but the most striking of natural phenomena.

Hence the importance of the leader or counselor who can artfully introduce the individual to his environment. At Tanager Lodge we believe it wise to get away from *the* nature counselor and instead try to have all our staff members interested in nature. Even though our nurse has never studied ornithology, she is anxious to watch the birds and encourages the campers with her to make such careful observations that together they can later identify them from pictures in the library. The head of swimming did not know trees, but he soon learned enough about them so that he could help the campers select the right wood for their campfires, lacrosse sticks or fire sets. Of course, enthusiastic interests, especially those of staff members, are contagious. One of our doctors was so keen about collecting and mounting insects that before he had been with us a week half the camp were starting to make collections. Other counselors are particularly interested in stars, or ferns—or fishing!

Of course, as I have often said before, there is certain nature knowledge essential to a person who would

"What are our ultimate objectives? We want to enrich permanently the lives of our campers by developing in them an appreciation of the exquisite beauties of nature, whether that beauty is displayed in the glory of the sunset, the majesty of the storm, the courage and devotion of a pair of nesting birds, or the symmetry of a snowflake. We want them to have a feeling of fellowship with the mountains, the trees, and our wild brothers."

camp safely, efficiently, and happily. Knowledge of fundamental laws regarding winds, waves and weather—the ability to read and heed nature's warnings of hurricane, hail, fire or flood—is imperative. It is as essential in safeguarding the lives of campers, especially those who sail, row or paddle, as swimming or life-saving tests. Knowing the characteristics of various woods—which ones ignite easily, which burn long and steadily, where tinder is to be found after a week's rain—are skills that make it possible to have a fire ready for cooking ten minutes after beaching your canoe. And nothing else so expedites the routine of preparing three meals a day when on a camping trip as efficient fire building. One must be familiar with many of the individuals, both plant and animal, comprising the forest community, if he is to avoid unpleasant experiences. We toy with poison

(Continued on page 55)

A successful fisherman must be quiet; it is to the quiet person that nature opens her pages



Photo and copyright by Fay Welch

A New Emphasis for Playground Nature Programs

FROM THE STATUS of an experiment in the summer of 1936, the playground nature activities program of the Oakland Recreation Department has grown to such an extent that in the summer of 1939 there were 2,414 children and 584 adults participating in a city-wide, playground-centered nature program. This development has been both the cause and the effect of an increasing interest on the part of recreation directors and playground patrons in the great variety of nature activities available to residents of Oakland.

A special director of nature activities is directly responsible for setting up and conducting a wide variety of outdoor recreation events centered at playgrounds throughout the city. With the cooperation and active assistance of the playground director, he organizes nature clubs, plans and conducts hikes, establishes simple playground nature museums, and gives lectures and "illustrates" them with living plant and animal specimens. He also encourages his listeners to begin their own nature collections and in this connection freely gives of his training and experience in making identifications and preparing labels. Part of the special director's time is also given over to demonstrating nature handicrafts and in conducting visits to local museums and wildlife sanctuaries.

Nature Handicrafts

In order to facilitate the conducting of nature handicrafts on the playgrounds of Oakland, the nature activities director has devised a very workable plan for the distribution and use of the special equipment and supplies necessary. Instead of attempting to provide individual tool and supply kits for each of the more than sixty playgrounds, the city is divided into twelve districts, and at a centrally located playground in each district there is deposited a complete outfit for such crafts as spatter-printing, ozalid printing, blue printing, and plaster casting. Each playground in the district may withdraw these supplies in rotation for the particular craft in which that playground is

The general plan of the nature recreation in Oakland, California, was outlined in considerable detail in the issue of *Recreation* for May, 1938. For this reason only brief mention will be made in this article of the fundamental basis of this city-wide program, and the intent at this writing will be to note some of the new emphases and the current trends which have been apparent during and since the summer of 1939.

especially interested at the moment. In this way, during a period of weeks in the summer time, all who wish to participate in these several crafts will have had that opportunity. This plan, which was launched in the summer of 1939, will be enlarged and used to an even greater extent in the future.

Typical Nature Activities Outing

On Saturdays during the school year, as well as at intervals during the summer vacation period, the special director of nature activities conducts playground groups on hikes and excursions of exploration and collection. A favorite destination for playground exploring parties is Lake Merritt in the heart of the City of Oakland. A tidewater lake covering some 155 acres, Lake Merritt is surrounded by a beautiful park area that includes at one end of the lake a wild duck reserve where thousands of birds are fed and sheltered every season. This area, of course, affords unrivaled opportunities for young nature enthusiasts to observe directly the habits and characteristics of many varieties of bird life.

At a boat house and a canoe house operated by the Recreation Department, there are available boating and canoeing facilities of numerous types. In addition, outdoor fireplaces and tables near the shores of the lake make it possible to enjoy a picnic meal as part of the excursion. Many groups enjoy crew rowing, also, as a part of their special trip.

One particular winter-time outing to Lake Merritt and the Wild Duck Reserve is here described in the words of the playground director who accompanied the nature activities director with her playground group.

"Had any of the parents of the boys and girls from our playground happened upon the group scanning the shores of Lake Merritt for crabs, clams and tube worms, I would have been somewhat embarrassed, for I, too, along with the children, was down in the mud and among the rocks searching as diligently as any of the party. Anyway, we were learning things and we loved it.

"Along the trail we sang songs, and our first venture was rowing around the lake. It is always fun to roast marshmallows and wieners, but it is the most fun when it is done around the outdoor fireplaces at the Canoe House. Firewood and sticks for roasting wieners and marshmallows are provided as a Recreation Department service.

"After lunch we walked to the duck feeding station which is a part of the Wild Duck Reserve. Here the nature activities director explained how the large cages are used for trapping the water fowl for banding purposes. We could see many ducks wearing the small, light metal bands. We also saw many birds which had formerly been in the Oregon Wild Life Exhibit at the Golden Gate International Exposition and which are now being released at Lake Merritt. The nature director gave a most interesting talk on the life histories and habits of birds now making their home at Lake Merritt. It seems incredible, but members of the group identified twenty-six species as follows: Eared Grebe, Pied-Billed Grebe, Black-crowned Night Heron, Canada Goose, Cackling Goose, White Fronted Goose, Snow Goose, Mallard, American Pintail, Green-Winged Teal, Wood Duck, Red-head, Canvasback, Scaup Duck, American Golden-Eye, Ruddy Duck, California Quail, Coot, Glaucous-Winged Gull, Herring Gull, California Gull, Ring-Billed Gull, Bonaparte Gull, Heerman's Gull and Forster Tern."

The playground director continues her story of this outing:

"In the course of the day we visited the Museum where one may see specimens of all the birds and waterfowl which frequent the Lake.

The Wild Duck Reserve at Lake Merritt in the heart of Oakland is a popular place for visits by playground groups

"Leaving the Museum and returning to our explorations along the tidewater, almost everyone succeeded in catching a mud crab. We know, thus, first-hand, how many legs a crab has, and we know just where to look for angle worms, Western Oysters, and Bay Mussels and large Horse Mussels. Several kinds of clams were unearthed and Acorn Barnacles were observed everywhere. Along some parts of the shore every rock was covered with little tubes in which tiny worms lived. They are known as Tube Worms and are confused by many persons with coral. They were introduced to this area from France and this is one of the few ports of the world in which they are found.

"It was unanimously agreed that this winter-time excursion to Lake Merritt was a great success; certainly it dispelled any ideas that the children or I might have had to the effect that the summer-time is the only time when hikes are fun."

Mimeographed Bulletin Service

Another point of emphasis recently developed in the nature activities program in the City of Oakland is the preparation, by the special director of nature activities, of mimeographed bulletins relating to different phases of outdoor recreation.

The purpose of these bulletins is to give specific and detailed assistance to playground directors in order that by using these suggestions they may give active co-



operation to the special director in carrying on the playground nature program. Obviously the director himself cannot spend a great deal of time at any one playground, and the better prepared the playground directors are to cooperate with him in carrying out the plans he suggests at the time of his visit, the greater is the continued interest of the playground patrons. Typical subjects dealt with by these bulletins are: "Hikes — Trail Games"; "Check-List of Animal and Plant Life of Camp Chabot"; "Nature Lore Games"; "A Bird Sanctuary in Your Own Backyard"; and "A Nature Bibliography for Recreation Leaders in California."

A Sample Bulletin

DID YOU KNOW THAT:

Bees do not bite? Dew does not fall?
 All turtles are reptiles?
 Poison ivy is not found in California?
 Deers walk only on their toes?
 The wing of the Red-winged Blackbird is not red?
 Animals differ from plants in being unable to make their own food?
 Water snakes are not found in California?
 The breast of the Robin Redbreast is not red?
 Bees do not gather honey from flowers?
 Young beetles are called "grubs"?
 Young flies are called "maggots"?
 Little flies do not grow into big flies?
 There are only about 5,000 stars visible to the unaided eye?
 "Wormy" apples do not contain worms?
 Blue-belly lizards are not poisonous?
 All cone-bearing trees are not evergreen?
 Warts are not caused by touching toads?
 Nearly all forest fires are caused by man?
 The "Flying Squirrel" cannot fly?
 "Darning Needles" are unable to darn?
 "Horned Toads" are really lizards?
 The "Potato Bug" is not a bug?
 Squirrels do not crack nuts?
 Dying snakes don't wiggle until sun down?
 "Shooting Stars" are more properly called meteors?
 The rattlesnake does not spit poison?
 No snakes roll along as hoops?
 Nearly all of hawks are useful?
 Fishing leaders are not made from cat intestines?
 Blackbirds are not really black?
 The mole feeds largely upon insects and worms?
 The Gila Monster is the only poisonous lizard in the United States?
 All insects have six legs?
 All swimming birds do not have webbed feet?
 Fish differ from reptiles in having gills?
 Plants get the energy for food-making from the sun?
 All leaves that turn red are not dangerous?
 The owl is not an unusually wise bird?
 Comets and meteors are not the same?
 The Starfish is not a fish?

Spiders are not insects?
 Not all lizards have legs?
 Poison-oak has blossoms?
 Ferns do not have blossoms?
 The goose is not a silly bird?
 Polaris will not always be the North Star?
 Any insect having wings is full grown?
 You cannot tell the age of a rattlesnake by its rattle?
 Snakes do not swallow their young to protect them?
 Snakes are not slimy?
 Drone bees cannot sting?
 The twinkling of stars distinguishes them from planets?
 No green snakes in the United States are venomous?
 Snakes do not "coil" to strike?

The Appeal of Playground Nature Activities Program

After several seasons' intensive work with playground groups and directors, it is the considered opinion of the special director of nature activities that it is really no problem to interest children in outdoor recreation. They seem to have a natural interest which requires some encouragement and provision of opportunity by those in charge of the playground program. Furthermore, it is not necessary for the playground director to feel that he must be an expert in nature lore before he can attempt to conduct a nature activities program for his playground. With the help of the special director, the mimeographed bulletins and additional inexpensive publications and a real interest in observing nature, every playground may become the center for outdoor recreation.

"Nature can be fitted into a recreation program in a number of ways, enabling you to select the one or more methods best suited to your needs. Nature can be a regular part of the recreation schedule with definite hours set aside for it on a class basis. There may be children's museum classes, gardening groups, or general nature classes. The program may be planned in the form of clubs centering around hobby interests, such as general nature clubs, mineral clubs, pet clubs, star clubs, and the like. Or it may be one of the many activities of other groups or clubs. The hand-craft group, for instance, may use designs from nature and investigate the source and treatment of the raw materials they use—the clay, wood or metal; and the drama club may put on a conservation play. Or the program may consist of a series of special events, such as celebration of Bird Day. On many playgrounds a week in the summer is set aside as Nature Week, and nature activities are stressed." From *Adventuring in Nature*.



U. S. Forest Service Photo

Recreation in the National Forests

By JOHN SIEKER

Assistant Chief
Division of Recreation and Lands
Forest Service

UNTIL RECENT years, the recreational enjoyment of the forest has been chiefly of an incidental nature. Today, however, forest recreation is no longer an unpremeditated matter. People do not, as a rule, live in the forest any more, and if they go there to enjoy themselves they are fully conscious of their purpose. Consequently they have come to realize that forest recreation has a definite value in their lives, that it is something for which they are willing to sacrifice time and money, and so they desire to plan for the preservation of its possibility.

The National forests number 161 and contain more than 175,000,000 acres, mainly in forest-covered, mountainous country. By reason of their geographical distribution in thirty-six of the forty-eight states, Alaska, and Puerto Rico, they are the most generally accessible large public areas adapted to outdoor recreation in the country. Picnicking, camping, fishing, hunting, hiking and motoring are

recreational activities common to all forests. Swimming is offered on most, while boating and canoeing on the myriad forest lakes and streams, particu-

larly in the Lake States area, are an enjoyable recreational opportunity. Winter sports recreationists find national forest snow trails one of America's most fascinating playgrounds.

Millions Visit the Forests

In round numbers, the best available statistics on the use of national forest lands for recreation during the year 1938 indicate there were approximately 14,500,000 actual users, and something like 18,000,000 driving over roads through the national forests primarily to enjoy the scenery, or a

total of nearly 33,000,000 who actually enjoyed the recreational and scenic resources of the vast expanse of land in national forests. These figures are valuable not as giving a precise measure, but for the general impression which they convey of the enormous popu-

"The use of forests for recreation probably dates from the time when some wandering savage, returning to his cave through the depths of the primeval forest, may have noticed a beam of sunlight shining on some darkened tree trunk, and felt, all at once, a moment of great joy."

larity which recreational use of national forests has already attained. There is, of course, a great deal of duplication in these records. Some people visited several different forests; some visited the same area on a number of occasions. It is therefore impossible to state how many different persons made recreational use of the national forests during the year, but it is known that many millions did so.

On every one of the national forests the U. S. Forest Service has developed public camp and picnic grounds which are provided with simple conveniences and necessities for the use of campers and picnickers. These camp and picnic grounds are open to the public during the season of use without charge, except that at some of the larger areas where there are heavy concentrations of people a nominal charge is made for special services such as cut firewood, hot showers, and use of bathhouse. Even on these areas where special services are charged for, use of the area is free to persons who do not desire the special services.

The national forests are rich in scenic beauty. They have the double attractiveness of a country that is largely forested, yet is easily accessible because of thousands of miles of good roads and trails. They are the home of game and fish, the refuge and breeding grounds of much of the wildlife that remains. Their wide distribution and extent, and their proximity to thousands of communities make them natural centers of recreation. Within their boundaries, travelers by automobile, on horseback, or on foot, campers, hunters, and fishermen, amateur photographers, hikers, naturalists—in fact, all who wish to come—have equal opportunity. Care with fire and cleanliness in camp are all that are necessary to make the recreationist welcome.

The great majority of people who today visit the national forests do so by automobile. While a large proportion of these visitors do not penetrate into the forest, many of them are very much concerned with the part which they can see from the highway. If this attractiveness were destroyed or seriously damaged, their enjoyment of touring would be immeasurably impaired. Consequently, it follows that for these people it is of great importance to preserve from serious scenic damage the timber strips along the more important roads. Although for many people the automobile tour in itself supplies every want, increasing numbers of people desire more intimate contact with the woods.

Camp and Picnic Grounds

Because of the extreme range of the national forests, it is impossible to describe the facilities or the types of recreation offered in any but a very general way. Some of the forest recreation areas are open the year round while others are usable for only a few months in the middle of the summer because of their high altitude. Some are within view of magnificent mountain scenery, at the base of snow-capped peaks, while others are sheltered in the wooded hills. Some recreation areas are reached only by traveling over mountain roads, and others are in close proximity to transcontinental highways. Camps are found in the dense spruce and pine forests of the Great Lakes region, and also in the heart of the Arizona desert amid interesting cacti where water is obtainable only at a few places. You can camp on the national forest with the surf pounding at your feet, or at ten thousand feet elevation where the alpine flowers make the best of the short season and isolated snowbanks do not entirely disappear until in August, only to start piling up again in October. One can find national forest camps that receive 100,000 visits a year, or some that are used by hardly more than a few solitude-loving campers. Since the areas are generally at higher elevation than the surrounding country, and are almost invariably under forest trees, they offer climatic relief to the visitors from the lower surrounding country.

All forest camp and picnic grounds are located in surroundings which will best serve the desires of the people who will use them. Shade, scenery, and a forest environment are the principal values sought, but fishing, boating, hiking, and swimming facilities are also very carefully considered and are available at many areas. Naturally, the location of other nearby camps also influences the choice, since it is desirable to give variety of surroundings and interest so that all kinds of people will be able to find wholesome recreational enjoyment. Forest camp and picnic grounds usually provide tables, fireplaces, safe drinking water, and sanitary facilities, and frequently the larger areas have community shelters. Some picnic areas have children's playgrounds.

The camp and picnic sites are so arranged that individual parties may have relative privacy, but if a group comes there are sites large enough to accommodate them. In general, the sites for individual parties are over a hundred feet apart and whenever possible are screened from each other

by tree growth. The general atmosphere is restful and definitely of forest character. The improvements are all simple and appropriate to the forest, harmonizing as much as possible with the natural setting.

Wilderness Areas

Besides camp and picnic grounds, the national forests offer other forms of recreation. On many forests wild, scenic back country has been set aside as wilderness areas in which the works of man are kept at a minimum. Roads and man-made improvements are prohibited, and these areas are accessible only by horseback or afoot. Here the lover of the primitive can lose himself in the almost complete absence of artificial influences and can feel somewhat the emotions of the pioneer who blazed the first trails through the forest.

In addition to these individual recreational opportunities offered by camp and picnic grounds and other recreation areas on all national forests, there are interesting group trips and hikes planned on many forests by local resorts, dude ranches and hiking clubs. The American Forestry Association sponsors several trail rider trips each summer into national forest wilderness areas, each group consisting of from twenty-five to thirty persons.

Scenic Trails

The national forests offer thousands of miles of scenic trails for hikes all over the country. There are also two famous trail systems which have become established through the cooperation of hiking clubs. The Appalachian Trail System stretches from Maine to Georgia, on both government and private land. This system is signed by local chapters of the Appalachian Trail Conference who also contribute to the maintenance of the trail where it passes through private land. It is used extensively by local groups for day and over-night trips. On the Pacific Coast, the Pacific Crest Trailway extends from the Canadian border to Mexico. This system is continuous through Washington and Oregon where it is known as the Cascade Crest Trail and the Oregon Skyline Trail, but there are some incom-

plete sections in California. Local hiking enthusiasts use this trail system extensively for long and short trips. More detailed information about these trails can be obtained from the Regional Foresters in Washington, D. C., and Atlanta, Georgia, for the Appalachian Trail System, and the Regional Foresters at Portland, Oregon, and San Francisco, California, for the Pacific Crest Trailway.

Winter Sports Areas

In recent years the Forest Service has improved many winter sports areas where snow conditions are satisfactory for skiing, snowshoeing, tobogganing, and kindred sports. The areas have abundant trails, suited to the beginner as well as the expert. These areas generally have shelters and often ski lifts to carry the skier to the top. Except for a small charge for the use of the ski lift the areas are free, and for those who prefer to walk up the slopes there is no charge. Cross country skiing on the forest is becoming more and more popular each year for those who love to get out into the forest. Many types of forest scenery are even grander in winter than in summer.

Organization Camps

For those who must get their recreation at very low cost and sometimes with financial assistance, the Forest Service recognizes a definite need for special outdoor recreation facilities. To meet this

(Continued on page 56)

One of the attractive trailside shelters in the Apache National Forest in Arizona



U. S. Forest Service Photo

Schools of the Out of Doors

TO LOUIS AGASSIZ goes credit for establishing the first nature training school—and indeed the first organized summer school—in all of the western hemisphere. That was in the summer 1873, on Penikese Island, off the Massachusetts coast. Agassiz's school was designed "for teachers who propose to introduce the Study (Natural History) into their Schools, and for Students preparing to become Teachers." To this Anderson School of Natural History were attracted forty-four students, all but four of whom were teachers in public schools or colleges. Although the school lasted only two summers, its aim "to show how teaching in natural history should be conducted by competent teachers" was fulfilled.

Agassiz's students continued this work of their master in two directions. One group evolved field laboratories primarily devoted to the advancement of biological research and the teaching of advanced teachers in the various biological sciences. These institutions are the so-called biological field stations, of which there are more than fifty in North America today. Some of these stations offer courses in the field sciences, but training public school teachers is not their chief purpose.¹

The second type of field laboratory which was inspired by

There are about sixteen nature training schools in this country—"field laboratories" where teachers and others are learning methods of teaching nature subjects to the uninitiated

By HOMER A. JACK
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Agassiz is the nature training school. This is an institution whose purpose more closely resembles that of Agassiz's school; it is to give teachers a background in the field sciences and—equally important—to show them methods of teaching these subjects to the uninitiated. While there are only a third as many nature schools as field stations in this country, they are found

from Maine to Southern California, from sea level to high altitudes of the Rocky Mountains.

The organization of these nature training schools is not complex. They are sponsored usually by non-profit nature associations, teacher training institutions, or similar groups. Most of these schools own or have the use of some sort of adult camp in a locality with several distinct natural environments readily available for study. Laboratory and living facilities are often provided for as many as fifty students at these camps. A few of the schools do not provide living facilities for the students, board and lodging being obtained at

hotels or boarding houses near the schools or connected with them. One of

the schools is itinerant, with the students and faculty traveling by automobile and living in sleeping bags under the stars—and clouds. Sessions

A class in the study of Botany at the Allegheny School of Natural History goes afield



Courtesy "Hobbies," Buffalo Museum of Science

¹ For further information on the biological field stations of the United States, including a list of courses given by them, the reader is referred to an article by the author in the March 1940 issue of *The American Biology Teacher*.

sions of the schools are mostly held in the summer months. They vary from one week to six, some beginning in the middle of June and others in late August. The cost—including board, lodging, tuition and transportation for field trips—averages somewhat less than \$19.00 a week. This is a moderate sum, considering one is combining vocation with vacation, education with recreation.

The program at these nature schools consists of varying mixtures of field trips, lectures, demonstrations, and conferences. There are seldom formal classes and the instruction is usually adapted to the needs of the individual public school teacher, camp counselor, or recreation specialist. Recognized scientists such as Oliver P. Medsger, A. A. Saunders, Gayle Pickwell, and others are employed by these institutions to give students the adequate scientific background which is generally recognized as prerequisite to successful nature instruction. When the training session is of short duration, the student is shown where to find aids in interpreting the facts about the various natural history groups in his teaching environment, rather than being taught the facts themselves. Outstanding nature leaders such as William G. Vinal, William P. Alexander, Farida A. Wiley, and others are also in residence at these schools to engender in the student—often by contagious enthusiasm—the elusive technique of successful teaching. Students are shown the psychology of leading field trips and the hard work necessary to make them a success. Hints are given for the care of native animals and plants in the nature corner or small museum—and for the care of the very interested youngster in the midst of these exciting new things.

An annotated list of the nature training schools in the United States follows. Persons wishing to attend any of these institutions are urged to make arrangements with the directors well in advance, for several of the schools have waiting lists for some of their sessions.

The Eastern Nature Schools

Allegany School of Natural History. Allegany State Park, Quaker Bridge, New York. Six-

week session, beginning about the first week of July. Courses offered in field methods in nature study, wildlife conservation, natural history of birds, field botany, and field zoology. Total cost: \$150. Prof. Robert B. Gordon, State Teachers College, West Chester, Pennsylvania.

Pennsylvania State College Nature Camp. Stone Valley, Huntingdon County, Pennsylvania. Two three-week sessions, the first beginning about the last week of June. Courses offered in nature education for elementary school teachers and for high school teachers. Total cost: \$75. Prof. George R. Green, Pennsylvania State College, State College, Pennsylvania.

Nature Guide School. Pine Tree Camp, Plymouth, Massachusetts. Two-week pre-camp session, beginning about the third week of June, and six-week regular session, beginning about the first week of July. Courses, given in a four-year rotating plan, offered in scouting methods, camp leadership methods, gardening, and in the various taxonomical and ecological groups. Total cost: \$69 (for the six-week session). Prof. William G. Vinal, Massachusetts State College, Amherst, Massachusetts.

Audubon Nature Camp.

Muscongus Bay, Damariscotta, Maine. Five two-week sessions, beginning about the middle of June. Courses offered in nature activities and in the general fields of ornithology, botany, entomology, and marine and fresh water life. Total cost: \$51. Carl W. Buchheister, National Association of Audubon Societies, 1006 Fifth Avenue, New York City.

New Hampshire Nature Camp. Lost River Reservation, North Woodstock, New Hampshire. Two two-week sessions, the first beginning about the third week of June. Course offered in nature study, being a combination of science education, geology, botany, ornithology, and zoology. Total cost: \$50. Dr. Jarvis B. Hadley, Tufts College, Medford, Massachusetts.

Science of the Out of Doors. Lakeville, Connecticut. Four-week session (although a minimum of two week's work may be taken), beginning about the second week of June. Course offered in outdoor science. Total cost: \$121 (for the four-

Mr. Jack has performed an exceedingly valuable service in compiling this list of nature training schools. With the name of each is given its location, the number and length of its sessions, the approximate time of the year the first session begins, the kind of instruction offered, the cost of attending a session, including tuition, board and lodging, and finally the name and address of the director. Anyone interested in a particular school may obtain additional information and, in some instances, an attractive announcement by communicating with the director of the school.



A class studying rock formations at the West Coast School of Nature Study

week session). Prof. F. L. Fitzpatrick, Teachers College, Columbia University, New York City.

Merricon Biological Laboratory. Nelson, New Hampshire. A two-week nature training course, beginning any time between the middle of June and the middle of September. Total cost: \$30. Prof. Parke H. Struthers, Syracuse University, Syracuse, New York.

The Central Nature Schools

American Institute of Nature Study. McGregor, Iowa. Two-week session, beginning about the first of August. Course offered in nature study and conservation. Tuition: \$5.00. Glenn W. McMichael, McGregor, Iowa.

Geneva Lake Summer School of Natural Science. Williams Bay, Wisconsin. The school will be re-organized in 1940, but in 1939 there was a six-week session in natural science, beginning about the last week of June. Tuition: \$25. Mr. O. D. Frank, University of Chicago, 5835 Kimbark Avenue, Chicago, Illinois.

Nature Leaders Training School. Oglebay Park, Wheeling, West Virginia and in the West Virginia mountains. Two two-week sessions, the first beginning about the

second week of June. Courses offered in birds, reptiles and amphibians, freshwater life, mammalogy, insect life, plants, geology, and astronomy. Total cost: \$29. A. B. Brooks, Oglebay Institute, Oglebay Park, Wheeling, West Virginia.

Lost Lake Conservation Camp. Long Lake, Wisconsin. Six-week session, beginning about the third week of June. Courses offered in conservation, field zoology, general botany, systematic botany, and geology. Total cost: \$85. J. D. Hill, State Teachers College, Superior, Wisconsin.

The Western Nature Schools

Yosemite School of Field Natural History. Yosemite National Park, California. Seven-week session, beginning the last full week of June. Special emphasis is given to methods of interpreting living nature in the fields of botany, forestry, entomology, ornithology, mammalogy, and geology. Total cost: \$90. C. A. Harwell, Yosemite National Park, California.

West Coast School of Nature Study. At various localities in California, with headquarters in San Jose. Four one-week sessions, several during the summer months and often one during

"That is the charm of teaching from Nature herself. No one can warp her to suit his own views." — *Louis Agassiz.*

(Continued on page 55)

State Parks—Centers for Nature Recreation

By GARRETT G. EPPLEY

OVER THE greater portion of the area of the United States the icy winds and the thawing frozen mud of winter are ushered out with the advent of April. It is in this month that the masses of our people turn their paths from the cities and towns into the open country to be re-created where "Nature speaks in symbols and in signs."

Weeks before the first nodding Dogtooth Violet and swaying Dutchman's Breeches can be found along the wooded trail, some 6,000 nature recreationists have traveled to northern Indiana's Dunes State Park to find the hidden treasures within its walls. These nature-lover park visitors—the hiker, photographer, artist and naturalist—weather their wintry, chilly arrival and then hasten to the secluded shelter belt whose valleys are protected from the chill lake winds by the 200 feet rise of the great dunes. The warmth of the February and March

Mr. Eppley has served since 1936 as recreational planner with Region 2 of the National Park Service with headquarters at Omaha, Nebraska. During the current semester he is enrolled for graduate work at New York University. His previous experience was in Indiana where he served as city Recreation Director both at Evansville and East Chicago, and as E.R.A. Recreation Director for the state. He has been devoting the major portion of his time to the initiating of leadership programs in state parks.

sun's rays, retained within these valley depressions, make it a climate apart from the winter on the outskirts of the dunes. It is in these tucked-away havens that one may come upon acres of wild flowers, myriads of birds and great numbers of wild animals—all who found this shelter centuries ago.

Through snow, rain, cloudy weather or sunshine, the quiet secluded valleys of the dunes shelter nature and

nature recreationists. There the nature-lovers find their recreation a quiet lot, each in sympathy with the other's interest and all in harmony with the environment.*

Most of us, who may not have an opportunity to make visits to some of the unusual pre-spring havens of natural history, will find supreme delight in an April or May visit to some of the numerous state parks of our United States.

Whether the distance of

Cars are left behind as they start on a nature tour in Lake Ahquabi State Park, Iowa

* Outdoor Indiana, February 1939.



travel to the park be great or small, by car, bicycle or by foot, it is the following of some wood path, after one's arrival in the park, that will make the visit render full returns. It is the first sight of the wood flowers, pushing their fragile dainty petals into view from beneath the rotting leaves, or the finding of a Jack-in-the-Pulpit and the rare Moccasin flower that gives us a taste of the choice morsels of nature magic.

Within the different climates of our states, each state park holds its enchanting fascination of spring, yet there seems to be a common joyful experience in viewing the arrival of a spring that is intensely animated with the blossoming of the Flowering Dogwood and the rich Redbud, to hike along that pathless wood trail that quietly pauses before a wood marsh and find there vast beds of snow-white Trillium interspersed with the pink-like petals of the older blossoms; to watch and listen to those lovable, noisy, glossy black, Red-winged Blackbirds whose business of beginning their new homes keeps them flying about among the willows so that one can enjoy the beauty of those gaudy shoulders so proudly adorned with the daring red patches bordered with yellow; to turn away from the wood marsh and follow the winding ascent into the upland wood, hearing choruses of the shrill, clear whistle, "What-Cheer, What-Cheer," and its saucy harsh contrast, "Jay-Jay." To go on and on until the day is done, welcoming the return of old familiar wood friends and experiencing the great joy of making new ones.

School Children and State Parks

It is during these few choice weeks that great numbers of school buses filled with children from urban and rural consolidated schools will be going to the state parks for their spring picnics. Those children belonging to nature clubs, and those to whom museums are available will feel at home in a state park. Others, who have become acquainted with nature in general and with the state park to be visited in particular through the aid of color slides and films, will require only a short time to orient themselves in the area to be visited. In planning a trip to a state park, a wise school principal will attempt to secure literature, slides, and films from state park authorities or the extension department of the state university. He will inves-

tigate the possibility of available naturalist service from the park department or from the community in which the park is located, and, if none can be secured, he will designate some of the faculty members to assist the children on the trip by interpreting nature and by stimulating their exploratory interests.

On the way to the park, the children, under proper guidance, will notice the many points of interest. At the park they will divide into groups, and each group, accompanied by a park naturalist or teacher, will begin its explorations. Some will seek the meandering rock-strewn creek; others will follow the trail that leads through the wood. In answering the numerous questions that will be asked, the naturalist will direct them to further explorations. During the day many varieties of native wild flowers and trees, some of which they have never seen, will be discovered and admired. Attracted by their songs and brilliant colorings, the children will approach the birds with cautious

steps. Toads, snakes and bugs will probably hasten for cover, but the frisky squirrel, jumping from limb to limb and from tree to tree, will cause exclamations of delight. The picnic lunch, happily interrupted by songs and a few games, can serve as the inter-

mission of the day. Just after the lunch intermission is an appropriate time for the trailside museum to be viewed. There the children will be delighted to discover that they can find, and identify specimens which were seen along the trails; or they may discover some specimens like the ones seen from their school slides and films.

There will probably be time for another short hike after the museum visit but, the hour for going home always comes too soon for most of the youngsters. Happy, though tired, each child will look forward to another school trip in the fall when he can enjoy the fall colorings and brisk hikes over the trails. In riding home some of the children will concoct good reasons why their fathers and mothers should take them to the park again soon, and if this can be done occasionally parents and children soon learn that such trips are wholesome family recreation.

Adventures with Nature

One state park visit, to be long remembered, was made last April to the Wilderness State Park

"From day to day, through each season of the year, nature speaks in tones of varied beauty; but it is in April and May, as she travels across state parks, that she leaves in her pathway a medley of soft and stirring greens with earthened galaxies painted by her brush of many colors."

situated along northern Lake Michigan about twelve miles from Mackinaw City. A training conference for park naturalists, sponsored by the Recreation Division of the WPA and the State Conservation Department, was being held there.

Before going to the conference, Mr. King-scott, state park director, informed me that deer roamed the park, and that at about dusk, some of them often crossed the road in going down to the lake for water. I kept my eyes tensely focused for any moving object or sound, as I drove into the park on the first evening, but I did not see a deer. This did not greatly disturb me, for in my effort to spot a deer by sound or movement I could see the great full moon peeking through the trees as I drove slowly, weaving in and out of the thick wood and open spaces within the park area; and then, coming into a greater open space, I could see the lake and the silvery reflection of the moon on the water. The ethereal, majestic atmosphere of the night so delighted me that I followed the same course the next evening and was rewarded with the glimpse of two deer on their return from the water's edge. Their evening's trek to the water's edge evidently was for the purpose of getting a drink, but it was past dusk, and I wondered if their lateness in returning into the wood may not have been due to a desire on their part to linger longer and enjoy the beauty of the water as the sky overhead cast its last mixed rays of the daylight into that great moonlight of the night. To glimpse the graceful fleeting leap of the deer, in that environment, was as the final intricate touch of the artist's brush to a masterpiece.



The park naturalist tells the story of the historic village in Spring Mill State Park, Indiana

Young Naturalists

Two young acquaintances, Junior Lacey and Ted Michaud, would have enjoyed the visit to Wilderness State Park. Junior, son of the National Park Service administrator for Michigan, would rather be in a natural area than any other place. When he goes to a state park he jumps out of the car and runs for the wood like a rabbit running for cover. Almost forgetting to eat, so interested is he in his adventures, that he returns to the car only when he hears the shrill "Come home" whistle from his dad. Ted, young son of Howard Michaud, chief naturalist in Indiana, spends his summers at McCormick's Creek State Park in that state. Each summer Ted and his mother select some nature project for exploration. Last summer, in addition to his project, he and a friend built a small dam and constructed a water wheel, announcing to their park friends that one penny would be charged from each person that came to see the invention!

The State Park Movement

There are 819 state parks in our United States. They vary in size from a few acres to over 30,000. Each area has at least one unusual or outstanding feature. The areas are usually rugged in topography, superb in scenery, and possess distinctive scientific or historical interests. In a life of strain and artificiality they serve as mediums for achieving stability and peace of mind. They offer opportunities for relaxation, enjoyment of beauty, invigorating and exhilarating exercise, scientific research and various other means of expression. In a state park one can actually plant one's feet in the soft earth. In a city one may look about and proudly say, "Look what man hath wrought; he has conquered the elements." But when in a natural area one cannot help but realize that man's genius is small compared to that of the great Creator. One's wish then is that man had planned more wisely.

The state park movement is relatively new, and its leadership program has made only a beginning; however, the beginning has proved successful. Nature guide service has been initiated; trailside museums have been constructed and nature exhibits installed; illustrated lectures have been given to groups, both within and outside the park areas; campfire sessions, community sings, and nature clubs have been organized. Nature columns have been written for the newspapers and radio scripts have been prepared for broadcasts. Community relationships have been established and extensive cooperation has been secured. The parks are becoming the centers for those interested in nature recreation.

Group and family camping have become an important phase of the state and Federal park programs. The person who is exposed to a natural environment, for a week or two at a time, has opportunities for developing interests and an aptitude for nature recreation that he might not have had otherwise.

Leadership Programs in Central and Middle West

Although successful program demonstrations have been initiated in state parks located in the three other regions of the National Park Service, I shall discuss only those with which I have had definite contact—those located in Region 2.

"Pausing in my studies this peaceful afternoon, I chance to think of the thousands needing rest—the weary in soul and limb in town and plain, dying for want of what these grand old woods can give."—*John Muir in 1876.*

Considerable interest is developing in the winter use of state parks, and although the interest is largely in winter sports there are large numbers of people who believe that nature, at this season of the year, has something definite to offer them.

At Ludington State Park, Michigan, last winter, I was informed that a nature tour had been planned for the following Sunday. The local recreation director stated that he planned to take advantage of the popularity of winter sports at that park by staging a big nature tour. He announced that coffee would be served at the various stations along the route. Later, I was informed that many people took the tour, saw the interesting features of the park, and, as was expected, made good use of the hot coffee.

Under the direction of Charles De Turk, the Indiana parks are used during the entire year. At McCormick's Creek State Park, the Evansville Munihikers, sponsored by the City Recreation Department come each New Year's Day to hold their annual meeting, hike over the trails and visit the trailside museum.

The Indiana naturalist program has been in operation for a number of years and has stimulated an intensive interest in the parks. Early morning bird hikes terminating with a breakfast at an open fireplace, illustrated lectures in the park inns, trailside museums, historical tours at the restored quaint village at Spring Mill State Park and the regular nature hikes during the day are proving popular with thousands of people each year.*

In Illinois the State Park Division employs two park naturalists on a year-round basis. The Reverend George Link, state naturalist, is stationed at Pere Marquette State Park, and Dr. Donald T. Ries is stationed at Starved Rock State Park. Both parks are along the Illinois river. Starved Rock is located about one hundred miles from Chicago and draws many thousands of people from that metropolitan region on a single day. Pere Marquette is located at the junction of the Illinois and Mississippi rivers north of St. Louis. On a clear day one can see the great Missouri, Mississippi and Illinois rivers from an observation point in the park.

Naturalist Link has organized nature clubs in towns near the state park. These clubs hold regular weekly meetings

* 1939 Report of Nature Program, Indiana Conservation Department.

in the park trailside museum. Illustrated lectures presented by Dr. Ries on Saturday evenings at the Starved Rock Lodge have proved popular at that park. Both naturalists make many contacts outside the park areas, consequently, many of the organizations in the state are becoming nature conscious. Hundreds of newspaper articles are published about the program. The State Department of Education has cooperated through the publication of a pamphlet entitled "Getting at Nature."

The entire Ozark Region is a park, and it is doubtful if one can find a more beautiful countryside during the month of October. The 1300 mile indented shore line of the Lake of the Ozarks, richly colored rugged forested lands over the entire region, the many powerful springs and smaller waterfalls, present a panorama of symphonic beauty.

Although the Missouri State Park system is young, Mr. I. T. Bode, State Conservation Director, and E. A. Mayes, in charge of parks, have initiated an excellent nature recreation program. Park naturalists employed during the summer months on a half-time basis devote the remainder of their time to research work for which Missouri University grants graduate credit. Pre-service training conference for park naturalists are held at Missouri University. Dr. Rudolf Bennit, Chief of the Wildlife Survey at the University, has secured the cooperation of the various departments for the training conference and for the field program. The Recreation Division of WPA, under the direction of Corloss Jones and the State Department of Education, have manifested considerable interest in this phase of recreation and education. A feature of the program planned by Uncas McGuire, chief naturalist, has been the community nature tours held in each of the various parks to which naturalists have been assigned. These tours are sponsored by local organizations or committees and draw special lecturers from colleges and universities, the U. S. Forest Service, State Geological Survey, State Conservation Department and Park Board, Missouri Botanical Gardens, and local authorities. Each naturalist regards himself as a community leader in nature recreation and makes many contacts outside the park area. Organizations such as the Missouri

Each year state park officials meet in conference. The twentieth National Conference on State Parks will be held May 13-16, 1940, in Illinois and Indiana. Starting at Starved Rock State Park, the delegates will visit the historic New Salem State Park in Illinois, then travel to Turkey Run State Park in Indiana, ending their journey at the restored village in Indiana's Spring Mill State Park.

Walk Way Club, organized by Al Wyman of the St. Louis Parks and Playground Commission, are including state parks in their weekly hiking schedule.*

Seventy-seven state parks scattered throughout

the state of Iowa have made both rural and urban populations park conscious. There the leadership program is similar to that in Missouri. A state advisory committee headed by Paul C. Taff, assistant director of Extension Service, Iowa State College, has been rendering invaluable assistance to the program. The naturalist program has had the cooperation of the various educational, recreation, youth and conservation leaders of the state. Federal, state and local agencies have participated quite freely in all phases of the program. Over 11,000 copies of "Nature Notes," prepared by the park naturalists, were published by the Extension Service and distributed to nature enthusiasts who visited the state parks. City Recreation Directors Ferdinand Bahr, of Sioux City, and Nevin Nichols, of Cedar Rapids, assisted the naturalists of state parks near those cities. The Recreation Division of the WPA, under the direction of Elston Wagner, has provided a portion of the leadership personnel, nature publications, and material for self-guiding nature trails. Mr. Victor Flickinger, Chief of Lands and Waters, and M. L. Hutton, State Director of the Conservation Department, have been pleased with the favorable newspaper publicity, the participation of the public, and the interest manifested by the park custodians in response to the program. The pre-service training conference under the direction of Dr. George Hendrickson of Iowa State College has done much to imbue in the naturalists a feeling that they are engaged in a movement of importance.**

In Wisconsin and Michigan the Recreation Divisions of the WPA directed by Fred Rhea and Miss Ann Becker, respectively, have promoted extensive programs. Programs have also been introduced in the state parks of Nebraska and Minnesota by the WPA Recreation Directors of those states. In these states park authorities have

(Continued on page 58)

* 1939 Report of Park Leadership Program, Missouri Park Board.

** 1939 Report of Park Leadership Program. Iowa Conservation Department.

What They Say About Recreation

"IT IS A KNOWN fact that the greatest values in life are found in those things which are the free gifts of nature. The most valuable recreational activities of mankind are those which require no extensive preparation and which are most simple and natural, those which are inherent in the nature of human kind. . . . We take for granted opportunities for recreation which abound about us; and, taking them for granted, we fail to notice invidious forces and events which tend to deny them to us. The beaches would afford, if preserved and protected, the means of life-giving recreation for millions of our people and for all posterity."—George Hjelle.

"The world is not less beautiful if bits of it become intelligible; a tract of country is not less romantic if we carry a map; the sky is not less blue if we know that the blueness is due to the scattering of light particles or molecules far up; there is no less pleasure in achievement if we use good tools than if we use bad ones."—A. V. Hill.

"The national park program is a broadly educational venture. It is an attempt to preserve, make accessible, and present to the millions of people who annually visit the parks and monuments a living story of the world about them. When people refresh themselves in great natural areas and at historic shrines, natural history and human history are rescued from the laboratory and the archives to become vital elements in the welding of the nation."—From *What Are National Parks?*

"In the last half century we herded 50,000,000 more human beings into towns and cities where the whole setting is new to the race. Space in which to play, contact with nature, and natural processes—of these the thoughtless city cheats its children."—Herbert Hoover.

"Not many of us have the opportunity of knowing the joys of long, happy days spent in the solitude of a woodland such as that inhabited by Thoreau; but to everyone the world out of doors beckons a friendly hand. There is greater joy in living for all of us who heed it."—Ruth Lohmann, New Jersey State College of Agriculture.

"The lure of the land is many-sided; I have yet to find any pursuit here that is not thick with unexplored paths and untried adventures, and if I were to outlive Methuseleh I believe that would still be true."—Gove Hambidge in *Enchanted Acre*.

"The park, as it has evolved through history, has had several functions—a hunting ground, a luxury of the rich, a common meeting ground for the public, a sanctuary, a play area, and a retreat from something oppressing. Today all these uses may be important, but there is a new conception of the value of parks. One thinks of a park as an eternal spring, giving forth intangible values which constantly enrich and ennoble the corporate life of any people. Parks inspire a love of country."—Raymond Morrison in *Parks and American Culture*.

"Fortunate is the child who has been from early days conscious of this busy world so unceasingly astir about us. He has a wealth of memories to carry with him through life."—Margaret Kennedy in *Birds in the Garden*.

"Those who love the park areas like to think that the millions of their fellow citizens who come for recreation to the national parks may sense the the ideals of the parks and go back refreshed to their work and life at home."

"The national forests include 175,843,405 acres of public land. On the basis of a total population of 130 millions, each citizen's share is little larger than a football gridiron. But the national forests belong to all the people, and the Forest Service is charged with the responsibility of administering all its resources and uses in such ways as will increase the wealth and happiness of the greatest number in the long run. One use of this vast estate is for human recreation. Millions of people come to it each year for an hour or a day or a series of days of rest, of relaxation, of inspiration, of seclusion, or of sport."—From *Report of the Chief of the Forest Service, 1939*.

"We are learning to use the native beauty of America in such manner that it shall not be destroyed but shall contribute to our national life."—From *What Are National Parks?*

Nature for the City Child

By MRS. LLOYD GARRISON, 3rd

THE NATURAL history docent had just opened

a drawer under one of the habitat cases in the new animal room at the Brooklyn Children's Museum. She picked up a fragment of organ-pipe coral and turned it over in her hand. It was a lovely thing and the care with which it had been handled by the children for more than six months was proof that they too thought it beautiful. The drawers, which were filled with objects meant for handling, had been an experiment, and the docent was feeling happy about it. Things were a little worn, perhaps, but nothing had been broken in spite of the thousand children who came to the Museum each day.

At that moment, twelve-year-old Margaret skipped through the door and slipped her arm through that of the docent. "I don't think the children take very good care of the exhibits," she said with an air of proprietorship. "Isn't there something we can do about it?"

No "Do Not Touch" Signs!

Margaret is only one of hundreds of children who sincerely feel that the Museum belongs to them. They take an interest in all the Museum's problems, both physical and educational. They handle the objects gently and are distressed when anything is damaged. They are concerned about the lack of space and need for new equipment, and often they come into the office to discuss these important questions or to make suggestions for improvement. The Museum feels that this sense of personal responsibility for the Museum is more important in the preservation of the collections than a thousand guards.

The atmosphere of the Children's Museum was set long ago by Miss Anna Billings Gallup, the Museum's second Curator. A child might wander into the bird room and stick his nose against the glass of the case, hoping for a better view. Often he would be interrupted by a pleasant person who would say, "Wouldn't you like to handle that bluejay?" This was un-

believable to the city child who had been brought up

never to touch! Sometimes he saw live birds in the park, but, of course, he didn't know much about them and had never touched one. Then this person, who talked in terms of a magic world, would take a key from her pocket and would open the great case. She would reach in and take out the mounted bluejay and put it into the hand of the amazed and delighted child. He would walk over to the window to see the iridescent colors of the wings. She would tell him about the life of this beautiful bird, what he liked to eat, how he got his food, the color of the eggs which appeared in the nest in the spring, and even what the nest would look like. Often this experience would be the child's first intimate introduction to the natural world. He would become eager for more knowledge and hungry for discovery. It would not be long before the Children's Museum was his hunting ground, his second home, the romance in his young life.

In 1899, when Professor William Henry Good-year, Curator of Fine Arts at the Brooklyn Museum, first conceived of a "children's museum," his chief concern was for the teacher of the biological sciences. He had seen in Europe some amazing visual materials, charts and models which demonstrated the structure of flowers and insects and animals, and which came apart to show the interiors as well. Impressed by the excellence of this material, he persuaded President Franklin W. Hooper to set up a "children's museum" and to purchase a collection of these visual aids from Emile Deyrolle in Paris. The museum was housed in an old mansion in what was then Bedford Park. It had previously been used for the storage

of collections which were awaiting installation in the great new adult museum on Eastern Parkway. Some people suggested that perhaps the objects which were not quite fine enough for the new museum could be used as a nucleus for the Children's Museum. Quite naturally, the citizens of Brooklyn were incensed at

"Children's museums have played a significant part in American education for almost half a century. The place they take in the future will be determined largely by their ability to study and analyze themselves and to recognize their own function in relation to other educational institutions. There is no question about their influence upon their young public. What form that influence takes, however, is a consideration which should lie close to the heart of every parent and every educator."



One of the exhibits in the newly installed Animal Room in the Museum. The cases are designed with drawers underneath containing material for the children to handle.

the suggestion and said quite flatly that what was not good enough for adults was far less suitable for their children. The Brooklyn Children's Museum was to have only the best. If children were to be taught natural history, their teachers must have the finest materials with which to work.

The Children's Museum was indeed a great help to the teachers of Brooklyn and to the entire metropolitan area. They could come with their classes and present subjects which would require many hours of explanation in the classroom. Visual education was being introduced to the schools of the community, and it was a success. Then something else began to happen. Children in the neighborhood would wander in by themselves after school or on Saturdays. They looked and looked and looked. Then they began to ask questions. They asked so many questions that the docents had all they could do to provide the answers. This young public which exceeded in enthusiasm anything known to the adult museum world soon took all the spare time of the Museum staff. Today the Children's Museum feels that its soundest educational work is done after the school hours. There is no problem of discipline for there is no compulsion to come. There has never been more than one rule and that is the simple request to wash your hands if you want to handle anything. The children rarely ever have to be reminded, but head for the wash basin and the soap as soon as they enter the Museum.

From the beginning the emphasis was placed on natural history subjects, although in recent years the social sciences have become increasingly im-

portant. There are exhibition rooms for birds, animals, insects, and minerals. In the basement of the Brower Park Building is a mineralogical laboratory where scientific work of the most serious type is carried on. A special science workshop is located on the top floor of the St. Marks Avenue Building, which was added to the Museum in 1938. It is a haven for children scientifically inclined, for they can experiment to their heart's content in almost any scientific field. There is a special room for the study of microscopy, equipped with a dozen microscopes and a microprojector which enables a whole group to view an enlargement of a microscopic slide on an ordinary motion picture screen. A small library containing about 15,000 volumes on related subjects provides further resources for the young scientists, and free motion pictures are shown each afternoon in the lecture hall. There are a few live exhibits, including snakes, rats, mice, two gila monsters, doves, a flying squirrel, a baby alligator, a turtle, and some fish. The science curator has always felt that a knowledge and understanding of animals is important to the young boy and girl because it helps in the interpretation of their own biological problems. They learn to care for living creatures and perhaps become a little more considerate in their human relations.

Activities related to the exhibits are carried on in almost all of the exhibition rooms all the time. These are designed for the child who wanders in by himself and wants something to do. There is never any coercion applied to entice him to participate. If a boy wants to sit on the floor and look at a duck-billed platypus for an hour, no one will discourage him. If, however, he reaches a point in his speculation when he wants to know more about this queer animal, the Museum docent must be ready to guide him further in his self-discovered interest. Sometimes she will suggest a special course of study, or will send him to another exhibition room or to the library for the information. Gradually he will come to know the resources of the Museum and will find his own answers. In most cases the educational activities are free from the competition which every child finds in school. It has never seemed quite fair for the Museum to set up the same obstacles which

the child meets in the outside world. It is felt rather that he should find a haven of security in the Children's Museum and that he should be allowed to carry out his own ideas in his own way.

Museum Clubs

The social value of group activities has been recognized, of course, and these take the form of Museum clubs. The docent or curator, however, does not decide to have a club and then urge the children to join. A club is formed when a group of children interested in the same things come into the office and ask for it. In each case, the children write their own constitution (if they feel one is necessary), make their own rules, plan their own programs, give their own lectures. The rules differ in the different clubs, but no club will allow an adult to lecture. A staff member acts as general counsel and stands by to give advice, but not to direct or to take part. These clubs are serious organizations. For example, the Science Club drops from membership anyone who does not give at least two scientific lectures a month. If he is not willing to do this much he, is considered a dilettante and not an acceptable member. The Microscope Club requires a knowledge of the parts of the microscope and one piece of hand-made microscopic equipment before admittance to membership. In many instances the children cannot afford the materials necessary in the pursuit of their particular subject, so consideration is given to instruction in making their own. Every Saturday the carpenter shop is turned over to the children, and it is always filled with intent boys and girls who are making equipment for use in some other division of the Museum.

About twenty years ago the Museum set up a loan collection, with a particular view to the needs of teachers who were unable to bring their classes to the Museum. A certain number of objects such as birds, minerals, shells, and mounted insects, were prepared too for the use of children. A certain knowledge of the subject is required for the privilege of borrowing this material which may be taken home, free of charge, for a week. Most adults who visit the Museum are shocked by this "carelessness," and are usually unbelieving when told that almost no damage ever occurs to exhibits lent to children.

This boy, who is making a fixed focus enlarger, is a member of the Craft Club in which children learn to make the equipment they need in pursuing their hobbies.

It was natural that other cities should recognize the social importance of children's museums. Boston followed Brooklyn's example, and later came Indianapolis, New Haven, Detroit, Oklahoma City, Cambridge, Hartford, Norwalk, Knoxville, Cincinnati, Cleveland, Kansas City, Rochester, Dayton, Los Angeles, Buffalo, Pittsburgh, Newark, Jamaica Plain, St. Louis, Palo Alto, San Francisco, Duluth, and Bridgeport. In 1937, the American Association of Museums, at its annual meeting in New Orleans, set up a Children's Museums Section, and now each year separate discussions on Children's Museum problems are held. There has been a general awakening of interest and introspection in the nature of these specialized institutions. For forty years, children's museums have grown much like "Topsy," using what materials and housing and leadership could be found in the local community. Some have specialized in natural history. Others have concentrated on art. No one, however, has ever sat down to analyze children's museums and to decide just what the minimum requirements should be. Are they merely recreation centers? Are they serious educational institutions? Are they museums in the same sense as adult museums?

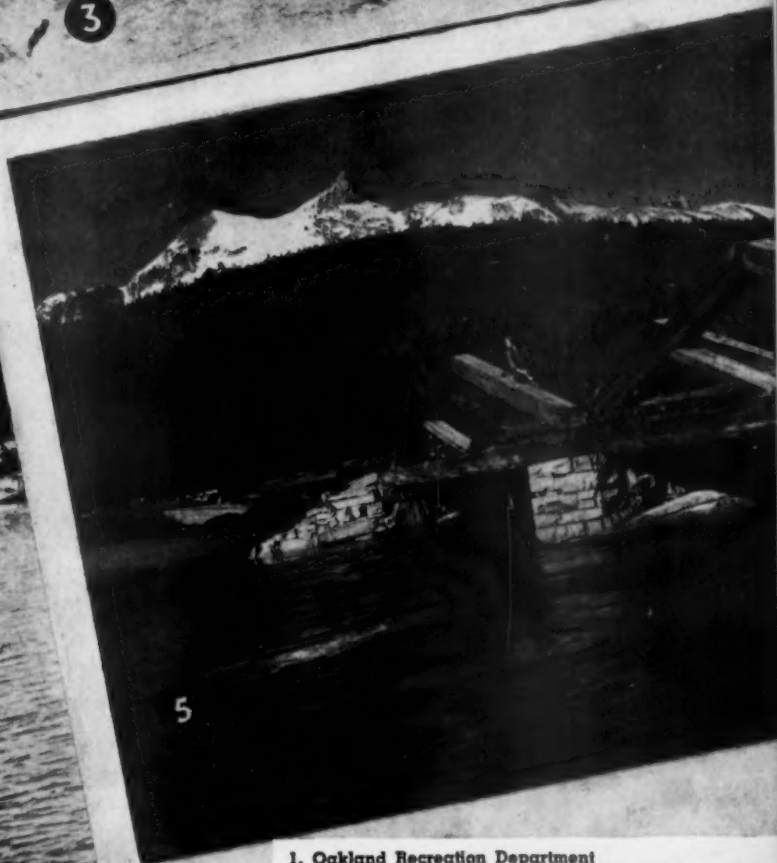
All these questions are being asked by those who feel the time has come to set up definite standards for children's museums. In brief, it is felt that they must be museums first of all, using objects and source materials as the basis of their equipment. The exhibits must be designed for children and there must be activities for children which are definitely related to the exhibits.



Nature Recre from PA to M



er'tion PLAYGROUNDS NATIONAL PARKS



1. Oakland Recreation Department
2. Shelter, DeSoto National Forest, U. S. Forest Service
3, 4, 5. Yosemite National Park, National Park Service
Left hand panel, Yosemite Park and Curry Company

Hiking in Mill Creek Park

MILL CREEK PARK in Youngstown, Ohio, has its own hiking club, and the weekly hikes, which are usually scheduled early Sunday morning, are all taken in the park with one exception. This is an out-of-town excursion on which the club goes during the fall season. Occasionally hikes are taken Sunday afternoon, and when they are held at this time they are followed by supper and a lecture in one of the park cabins. In connection with the morning hikes breakfast is scheduled for the third Sunday of each month. It is in charge of a special committee appointed to take charge of this part of the program.

The Park Museum

Hikes are conducted during the winter season as well as in summer, but in bad weather the group spends its morning in the park museum which is housed in an old flour mill building. The building and the nearby falls are a familiar landmark to the

By **KENNETH C. WIBLE**
Recreation Director
Mill Creek Park

"I have met with but one or two persons in the course of my life who understood the art of walking, that is, of taking walks."

Thoreau

people of Youngstown and vicinity. A full-time naturalist is in charge of the building, assisted by a part-time naturalist and a park forester. In the museum are mounted displays of material characteristic of the park and nearby region. Naturalists are available for nature hikes in the park or for lectures

in the museum. Lectures are also given outside the park and Kodachrome slides are used in connection with them. Last year 187 groups totaling 19,843 people saw these pictures emphasizing nature lore and park appreciation.

Each month the museum leaders publish a nature bulletin which is distributed to individuals, school groups, settlements and similar groups by the Wild Flower Preservation Society of Youngstown. On the park playground nature study is a feature of the weekly program, with the park naturalist assisting the playground leader in developing tree trails, in leaf printing, and in mounting insects.

The Mill Creek Park Hiking Club
spies the first robin of Spring



Gathering a Collection of Memories

By V. K. BROWN
Director of Recreation
Chicago Park District

THE PATRIARCH of the faculty, one of the wisest men of his century, walked feebly down the aisle and faced our student audience.

It was one of the last he was ever to address. He leaned heavily on his cane. We knew, as he did, that neither our veneration for him nor his affection for us, devoted as those reciprocal feelings were, could much longer withstand the advance of the years. Audience and speaker realized that it was to be a twilight talk, not alone in the sense that it was evening on the campus. We knew that his remarks might prove perhaps the final benediction of a great scholar.

He drew us all into a closer circle with a smile which in itself expressed serenity, as well as benevolence. At last he began to speak:

"When Youth looks at Age, tottering in its feebleness, he pities him. But when Age looks at Youth, expectant in its hopefulness, he pities him. Youth forgets that Age has the comforts of accumulated memories to solace him. But Age never forgets that Youth confronts the pains of disillusionment to distress him."

The talk that followed is itself a memory now. It comes back over the years from my student days to weave itself into the picture I want to give you today. In such ways the pattern and color of our thinking reflects our memories.

In those same college days I spent one summer working in the city. I intended writing a story of the summer's experiences in a bitter labor struggle. It was not a pleasant summer. Much of what I saw was disheartening.

Days and nights were spent in the slums of the city. For weeks I didn't see a tree or flower, or hear a bird. At last, one Sunday when I could endure it no longer, I went out to Ravinia, to the music pavilion surrounded by the trees, where a summer concert series was being given by Walter Damrosch and his orchestra. A storm was gathering to the

west as the concert progressed. It broke in raging fury just as the orchestra started Wagner's "Ride of the Valkyries." All the lights went

out just before the orchestra started playing that number. The management produced candles, which were tied to the music racks and lighted. Wind was roaring through the trees. The lightning was almost incessant. One by one the candles flickered out, but the orchestra played on, their scores illuminated by the lightning flashes, the music reinforced with the crash and rumble of thunder. For all of those in the audience it was one of life's big experiences, the rising pitch of the music mounting to its climax as the storm outside the open pavilion reached its own accompanying climax. I do not believe any person in the audience remained seated. We couldn't stay in our seats. We all rose to our feet, so compelling was the thrill of the occasion. Everyone realized that he was undergoing an experience which he would never forget. None of us, I dare say, have ever heard the opening strains of that composition without experiencing again something of that same thrill, brought back by memory to lend additional present significance to the music. One just can't divorce that score from the memories that cluster around it. They become part of it, and the total effect of it on each new re-hearing is the sum of its present rendition supplemented by the renditions which one has enjoyed in the past. It is thus that experiences are enriched by memories.

The cumulative value of experience is nowhere better illustrated than in nature. Thought pictures, to most of us, are visual pictures. If some one should ask us what we had for lunch, our memories, in most cases, reconstruct a visual image of the table, the dishes, and the foods. The word nature does not suggest the whirling fiery gases of a sun spot which we have never seen, although science has given us something of an im-

"Our profession is pledged this year to support the cause of nature recreation. President George Hjelte has appointed a committee of the Society of Recreation Workers of America, not all of whom are members of the organization. The Committee is sending out to the field an extensive list of suggestions embodying the collective thought of all the members. The list permits each member of the profession to select a specific undertaking to which he will give support or, if he prefers, to indicate an original undertaking of his own. But it provides a means by which unitedly the entire profession may join this year in establishing new elements in the American attitude toward a greater appreciation of nature."

aginery picture of them. Rather, it suggests something out of our own past and personal experience. The picture which oftenest comes to my own mind is either a flaming yellow blossom against the bare rock of a desert canyon, where I was startled to see it as I rounded a jetting shoulder of the mountain, or it conjures up before me a composite of rivers and forests which I have actually visited, of shade whose coolness I can still feel, of the brown inquiring eyes of a little deer that came up to eat out of my hands in the Yosemite, with squirrels and chipmunks flitting about.

I find, in my own memory pictures, that the word nature never suggests the presence of many people about me. It doesn't bring to mind the bathing beaches I have visited, nor does it summon again the outcroppings of rock from which I hammered geological specimens. The memories that chain together, following the word, which sets them all in motion, reflect the associations which I have built up over the years, but those associations which stand out with greatest vividness, I find, are the ones which at the time were furthest removed from the routine commonplaces of daily life.

Astronomy does not recall the books that I have read about the solar system, or the illuminated photographs of the surface of the moon. The associating process brings, first, an image that I saw the night I was worn out by studying for an examination and went out into the darkness to take a walk in the crisp air of winter. Seeing the door of the observatory open, I went into the telescope chamber, and one of the astronomers invited me to look through the eyepiece of the telescope. The instrument was trained on the planet Saturn, enlarged by the reflector lens to approximately the size of the full moon, with its rings extending out beyond the planet itself; and close on the heels of this memory image is the recollection of the evening when I first saw the Planetarium, and after the bodies of our own solar system had been put through their evolutions in projection on the dome, the operator suddenly turned on the universe of stars.

Each of us has his own set of memories, but the significant thing is that they attach themselves

even to the words that serve as identifying symbols, and they come trooping back with every new experience for which those symbols stand. The new experience summons the old into audience again.

And the new wouldn't have much of significance without the old. The new musical composition lacks depth until one has heard it several times and begins to accumulate impressions. One motif is reminiscent of a strain in an opera, or a symphony that is half forgotten. Another suggests a song heard long ago. Gradually the composition adjusts itself to the memories of the auditor, and develops its own chain of satellites, and then appreciation begins. It is the game with which we have grown familiar that interests us. We must understand it before it can fascinate us as a spectacle. Ice Hockey, for example, has every

element of appeal—speed and grace of movement, rapidity of change, strategy which is transparently understandable, shock and daring. But people had to become accustomed to it before it drew large audiences. It required a set of memories before it filled the stands.

It is well for the recreation profession this year, pledged as it is to make

the promoting of nature recreation a project of the year, to bear these facts in mind. The strategy of our campaign is a strategy of relating other interests to nature, to involve nature with other memory associations, so that established preferences and accomplishments develop new connections with nature as a related subject.

Establishing an Awareness of Nature

In the parks here in Chicago, we became convinced that our athletes and the devotees of sport were not intentionally destructive when they chased a foul fly through the shrubbery bordering the ball field. Rather, they were unaware of shrubbery, as shrubbery, considering it only an impediment to be ignored in concentrating their attention on the business of catching the fly. What they needed, we felt, to end what was miscalled vandalism, was a new awareness of shrubbery as shrubbery, rather than as bushes. Our problem was how to

"The educator, and the recreation worker as well, is in the business of developing experiences which will associate themselves with future happenings to give them additional meaning and significance. His business is one of stocking the memories of those with whom he deals with recollections that will associate themselves with future living. In the words of the poet Moore, he assists memory to 'draw from delight, ere it dies, an essence that breathes of it many a year.' He enriches not only the present with his contribution to greater variety and larger content. His is a contribution to the future as well."

bring about this awareness, how to establish memory connections that would give the shrubbery significance in the background of their consciousness. We couldn't hope immediately to interest them in landscape art. We didn't think that nature study, as study, would accomplish what the educator calls "transfer" into their ball playing behavior patterns. Education hasn't solved its problems of transfer yet, to inspire us with hope that we might succeed where the educational process has had so much difficulty.

Where the landscaping had suffered most of destruction, however, one of our former baseball players assembled the boys of the neighborhood. Throughout our system he was in charge of construction, and was about to move into the park in question with a WPA crew to reconstruct the grounds. Before doing so, he met the boys as they came tripping out of the neighboring school. As soon as he had collected most of them he said to them, "Listen, you guys. I'm the boss in this park over here, and I want you fellows to 'wise me up' as to what you want there. I was a kid myself not so long ago, over in Bridgeport. We were pretty hard-boiled eggs ourselves, and we had to fight for the things we wanted. I know that this park wouldn't be torn to pieces the way it is if it didn't have some things that were wrong with it, so I've come over here to get you to tell me what's wrong, and help me put it to rights. It's up to you now to come across and give me the low-down. What's the matter? Let's go right over to the park now, where you can show me just what ought to be done."

The whole crowd went with him. Here was somebody that promised to be sympathetic toward their ideas. Arriving at the park, they pointed out its defects:

"Look what these park guys done to our diamond. They built a walk across right field, and built up a bank alongside it, and put in a lot of bushes. Over in left field they done the same



The search for specimens of marine life is bound to have significance for the child's later experiences

thing, only worse. They stuck a fence in behind the bushes. How can we play a ball game with all this stuff in the way? We used to have a good ball field here, and them park guys just ruined it."

The construction engineer who knew boys said, "All right, fellows. Come on over Saturday morning with your shovels and we'll tear the stuff out."

"Aw, but you can't; the cops'll chase us."

"No they won't. I tell you I'm boss here."

Saturday morning all the boys in the neighborhood came over with shovels and bars to tackle the job of demolition. They tore out the cement sidewalks which we had determined to remove with the WPA forces. They dug up the fence and the shrubbery, the boss seeing that the latter was removed with a ball of earth around each root development, and that the shrubbery itself was neatly piled for transplantation.

The boys voted, as we had already decided in our plans, that the playing field should be brought up to level, and the surrounding terraces should be cut down to grade. Our engineer then propounded a new problem. After measuring off the ball field to everyone's satisfaction, he said, "But look, you guys, your mothers and your sisters are going to come over here some day to watch you play. They are going to bring your baby brothers over in the baby carriage, where they can see you knock the cover off the ball. We'll have to put in a new walk outside the ball field. What do you say we stake that out too, so my men, when I pull them in here to finish up our work, will know just where we want it?" Accordingly they staked the walk out where our landscape department had previously planned that it should go in our reconstruction project.

Then "Big Jim" had another idea, and again called a council of war. "Listen, you bozzos," he said, "This place is going to look pretty tough unless we have something growing around the edges here. It's going to be hot and dusty, and it won't be any kind of a place for your mothers to

come and watch the game. It'll look as bare as that dump of a park over beyond the tracks. You sure don't want your park to look like that! That may be good enough for those guys, but it isn't a fit kind of a place for such a gang as we have here. What do you say we take some of this shrubbery that we dug up and let's plant it ourselves, around the edges, where it'll have a chance to grow, without being in anybody's way, and where we can all take care of it and see that nobody busts it up?"

The result was that the day ended in a feverish campaign of transplanting the bushes that had been such a hated nuisance. The leader explained the difference between one kind of shrubbery and another. He got the boys to thinking about clustering shrubbery for landscaping effects. He got them to considering grassy bays between, where the smaller children might picnic on the sod. He pointed out locations where trees might be brought in and located. He even suggested that the seeds and berries of the shrubbery would attract birds to move in and establish their homes. When the labor forces arrived Monday to proceed according to the blueprinted plan that had been drawn long before, there was established in the memories of the boyhood of the community a new element, interpreting the work those laborers were to do. They were carrying out a plan in which each lad was participant. The whole boy community watched proceedings with fresh interest. Every wheelbarrow full of earth was moved in accordance with a program whose design was a cooperating project. The park boyhood solemnly discussed with the workers the fulfillment of their own plans. They pointed out the things that they had done in preparation, the bushes which they had planted themselves, and the sweep of open space where they expected later to plant a "sizzling liner" when they got into the ball game.

Two or three years have passed since that park was remodeled. Its shrubbery is thriving. It is protected by every child who visits the park. No one would dare to injure, much less destroy, it. Each tree and bush has its associated memories, and its consequent significance.

We could not proceed wholesale on a reconstruction program in every park site, but we were able to apply the same strategy in other locations. Our landscape planners indicated spots where children's gardens might be accommodated without detriment to the landscape composition. Our propagating houses furnished flowers and plants

suitable for early transplanting in the spring, so that something, at least, would be already growing, and the youthful gardeners would not have a long and discouraging wait for seeds to germinate and appear above ground. While the ball player usually had no part himself in the gardening enterprise, he did see his contemporaries working in these designated spots. While he had ignored the gardening staff in the past, the sight of children engaged in cultivating and contributing to the beauty of the park, by its very novelty, forced itself on his attention. Insensibly he became landscape-conscious.

The lad whose interest centered in the craft shop was presently approached by children of his acquaintance with the request that he contribute something of his time and skill to helping build a set of window boxes in which flowers and vines might be planted to decorate the walls of the fieldhouse. The metal craftsmen were similarly approached to contribute toward the building of metal brackets to support the window boxes. Boys who had had experience were asked to paint the boxes and the brackets, and some of the mechanically-minded citizens of the juvenile community discussed the drilling of holes in the building walls, and the insertion of lead plugs in which the brackets could be screwed securely into place. Additional elements were thereby brought into the consciousness of others than the few who were enlisted in the gardening enterprise, as being already susceptible to a nature appeal and the result has been that our budget for landscaping maintenance, which a few years ago was insufficient to provide all of the repair and replacement of vegetation necessary, has been sharply reduced. The movement has saved the Park District thousands of dollars in landscaping repair bills.

We have established the beginnings, at least, of a nature awareness. Something of the wonder and curiosity which underlies a developing interest in nature has been introduced into the community consciousness. Such establishment of foundation memory associations is the first step, we think, in developing a nature interest. It associates with the wanderlust, which sends youth exploring its world, a wonderlust to keep it company.

"The tradesman, the attorney, comes out of the din and craft of the street, sees the sky and the woods and is a man again. In their eternal calm he finds himself."—*Ralph Waldo Emerson.*

With the Colorado Mountain Club

By PAUL W. NESBIT

WHEN AN individual becomes a Colorado Mountain Club member, he has an opportunity to take advantage of an increasing number and variety of activities. If he has not yet been initiated into the techniques of skiing, rock climbing, ice work, or the use of the rope, he may join with others and be instructed. If he desires to learn more about nature, geology, or photography, he may join special groups and attend lectures or field trips concerned with each. Nor should his enthusiasm become dulled, for other enthusiasts are there in abundance to whet his appetite, and Colorado's mountains, rich in variety and interest, are close at hand.

The club has branch groups located in Denver, Colorado Springs, Boulder, Fort Collins, and Walsenburg, as well as a junior group in Denver. Each group has its own schedule of activities sometimes including joint trips of two or more groups. A booklet listing all of these events for the year is published each spring. The monthly publication of the club, *Trail and Timberline*, contains informational articles of interest and notes of the doings of the various groups. Annual wild flower shows of some groups have been very popular.

The winter sports program of the ski section has done



Courtesy Colorado Mountain Club

It is the experience of the Nature Enjoyment Camp that through a program of varied activities approaches to enjoyment of nature may be utterly diverse and adaptable.



Courtesy Colorado Mountain Club

much to popularize skiing in the region and to develop facilities for it. The club has a ski lodge at Winter Park (formerly West Portal) in the mountains west of Denver. This is accessible both by railway and transcontinental highway. Here and elsewhere in the state a wide variety of winter sports events are scheduled. The Junior Group, besides furnishing members of the Ski Patrol, whose primary aim is to promote safety in skiing, is looked to for future championship material.

A high point was reached in our program last summer when climbing and nature activities and interests were experimentally combined in a School of Mountaineering. This school, based on the idea that the more we know about the mountains the better we shall enjoy them, took the place of the regular annual outing. It was held at the Glacier Gorge—Loch Vale junction in Rocky Mountain National Park—the latter part of July and the first week of August. The following types of trips were offered almost daily: regular climbing trip, nature exploration trip, difficult climbing trip, and climbing instruction trip. One may sum it up by saying that all of these types of trips were popular. A common campfire in the evenings gave an opportunity for singing, skits, informa-

tional talks, and plenty of good fellowship. Besides several club members who are experts in different fields, University professors and National Park Service men gave much appreciated help. So successful was this form of outing that another inexpensive camp is being planned along similar lines for July 20-28 this coming summer. It may be held either at Long Lake or at Crater Lake. For October, a three weeks bus trip is being planned to old Mexico to climb Mexico's three big peaks and to see the sights.

Another innovation of last year was the Nature Enjoyment Camp held in June by the Walsenburg group at Cucharas Camp in the mountains of southern Colorado. This camp was concerned mainly with learning about nature, and with methods of leading others in nature interests. A morning hike, an afternoon of games and teaching methods, and an evening campfire program consisting of a lecture on some phase of natural history together with songs and stories made up the usual daily program. This camp will be repeated this summer from June 10-16 and it will not be restricted to members. In fact, it is offered as an inexpensive opportunity for interested teachers whose applications are accepted to re-create health and spirit before starting summer school. By such activities

the Colorado Mountain Club is growing in practical demonstration of the recreational opportunities of the great out of doors.

An article in *Trail and Timberline* for August, 1939, reports that in addition to the full-time regis-

trants there were many who attended the Nature Enjoyment Camp for short periods. The daytime sessions were attended by seventy-eight individuals, some of them over seventy years of age. Forty different people received certificates for attending five or more of the daytime sessions of the camp, and many others came to the programs in the evening. There were registrants from six states besides Colorado, and from nine communities in the state itself.



Courtesy Colorado Mountain Club

Lone Eagle or Lindbergh Peak across Crater Lake—the possible site of the Club's 1940 School of Mountaineering

Among the activities which proved to be of special interest were the tree and shrub hikes, a beaver watch party, a treasure hunt, the early morning bird walks,

and the experiments in outdoor cooking. Leaders at the Camp observed and listed one hundred and twenty-eight kinds of plants in blossom, fifty varieties of trees and shrubs, thirty-seven different kinds of birds, and seventeen kinds of wild mammals. Many were the ideas and bits of information carried away by those who participated in the happy activities of the Camp.



Nature Education in the Pittsburgh Parks

By

ROY BLACK and J. R. STECK

WHEN THE EARLY settlers came west over the Allegheny Mountains, the Indian trails led them to a point where two rivers joined to form a third. There they looked upon hillsides covered with green forests abounding in game, and rivers and streams filled with fish—nature at its best. Soon a settlement sprang up where the Allegheny and Monongahela Rivers met to form the Ohio, a town destined to be called the “Workshop of the World.” The three rivers, plus rich coal deposits, led to the rapid growth of Pittsburgh. Much of this growth was accomplished at the expense of the natural resources which were so plentiful when Pittsburgh was first settled. Because the natural resources were so abundant people spent this heritage easily without the foresight that characterized certain of Pittsburgh’s early naturalists. It is interesting to recall the story of Jonathan Chapman, better known as Johnny Appleseed. This early (1775-1847) itinerant naturalist saw ahead to the time when the cutting of trees would exhaust the forest and a spring would come when children would no longer be able to see and smell the fragrant apple blossom.

This unusual character devoted his life to the practicing and preaching of conservation, a life which has borne fruit. As we record the development of Pittsburgh, other names appear on the roll as naturalists. To the list should be added those foresighted individuals who gave to a growing city tracts of land to be used as parks. Whether consciously or unconsciously, these people were following the footsteps of Pittsburgh’s first

naturalist, Johnny Appleseed. These park areas are today the only remnants to remind us of what our early ancestors looked upon from the point. They are oasis in an industrial city whose river banks are lined with mills belching forth black smoke into the air.

Today in Pittsburgh there are 1971 acres of field and woods set aside as public parks. They are scattered throughout the entire city with a major park of over 350 acres in each section. To this group we might add a fifth park on the South Side of about a hundred acres. These parks are characterized by wooded hillsides and valleys suitable for abundant plant and animal life. There are facilities for picnicking and physical recreation, for the most part so located that they do not interfere with the more natural areas of the parks. In recent years increased leisure time has placed a heavy burden on the parks, with use resulting in abuse. Park recreation facilities, trees, shrubs, flowers, and wildlife suffered alike. The public did not understand just how much this destruction meant to each individual park user. How was the Park Department to cope with such a situation? One obvious answer was to educate the public.

Educating the Public

In the fall of 1933 the Emergency Education Council sponsored an experimental adult program of nature lectures and field trips in the vicinity of

Frick Park. The program was an immediate success, and the following spring those who had attended regularly organized to assist in planning future programs and in spreading the doc-

Mr. Black is resident naturalist in Frick Park in Pittsburgh, and Mr. Steck occupies the position of Nature Education Supervisor in the city's Bureau of Parks.

trine of the conservation of nature's beauty. The schools at the edge of the park began to participate in the program by planning field trips and nature lectures. This new idea grew rapidly and had a remarkable effect on the way the community used Frick Park. Realizing that the value of this park appreciation should be spread throughout all parks, the City Park authorities and members of the Science Department of the Board of Education planned a park appreciation program to be taught in the nature classes of the city schools.

Just how was the proper use and respect of parks to be taught? Under the direction of a nature photographer a series of 16 m.m. motion pictures were filmed on park trees, wildflowers, birds, animals and activities. These pictures, shown by park representatives, were used to arouse student interest with the aim of planning field trips in the parks to further the teaching of this new appreciation.

The teachers received this new program with enthusiasm, and soon the demands for talks and field trips had increased to such a degree that the need for specially trained men to carry on the program was apparent. In the fall of 1935 the first naturalist was added at Frick Park; he was soon followed by a naturalist at Riverview Park and later another at Schenley Park. With a staff of trained men the nature education program grew rapidly.

The major duty of the park naturalist is the co-operative work with the schools. New subject material is constantly being added to the film library and the use of color has improved the teaching value of these films. Recently the nature staff has experimented with the use of the new 35 m.m. slides. Where motion is not a necessity, and where natural color is desirable, these new slides are proving their worth. The first trip is still the most valued teaching aid, and each year more teachers are bringing their classes into the parks. During the last few years the school program has extended to parochial and private schools, as well as suburban schools. This program with the youth of the community does not stop with schools. The park naturalists are called on to assist with the nature program of the Boy and Girl Scouts and other youth groups interested in the out-of-doors. During the vacation months, with such organizations conducting day camp groups in the city parks, the naturalists were given an ideal opportunity to further conservation. These contacts were especially valuable because

more time could be given to the program and the contacts made more personal.

With a well-balanced youth program, the next step was to interest the adult population. Following the example of the original program in Frick Park, each naturalist conducts Sunday morning nature walks in the three major parks. These walks are general in nature and planned for the average park visitor. Because nature buildings were available in Frick and Riverview Parks, the adult program developed more rapidly. Guest lectures were invited to give talks on natural science and travel. These talks have proven themselves to be very popular. In Frick Park, under the sponsorship of the Frick Park Naturalist Society, a weekly program of lectures and social activity has been successful. Lecture demands by the parent teachers associations, garden clubs, civic groups, and other organizations have given the naturalists splendid opportunities to spread the doctrine of park appreciation.

Nature Buildings

In Frick Park two buildings have been devoted to the nature program. The Fern Hollow Cabin is used as a meeting place for nature hikers and for summer lecture programs. The Nature Museum on Beechwood Boulevard houses museum displays with a lecture hall, and is also the residence of the naturalist. Outside the building is a collection of native Western Pennsylvania animal life.

In Riverview Park the headquarters for the nature activities are located in the Wissahickon Nature Museum. This building is ideally located and suited for this purpose. Living and mounted nature displays, as well as ample room for lecture facilities, are available. Surrounding the Museum is a wildflower garden planted with native Western Pennsylvania plants.

In Schenley Park an old historical log cabin has recently been reconstructed and will serve as headquarters for the Schenley Park naturalist. The establishment of a nature building in each park is very desirable, not only for the adult program but for youth groups as well.

Trailside Museums

A very popular part of the nature program centers in the Frick and Riverview Trailside Museums. These buildings are not museums in the strict sense of the word and should be regarded

(Continued on page 54)

The Nature Program at Oglebay Park

AMATEUR AND PROFESSIONAL experts who have progressed far beyond the stages of learning anything from casual field trips are taught the finer principles of nature in the annual Nature Leaders Training School. Those who want to meet together and discuss the latest findings are encouraged to do so in hobby clubs which proceed somewhat on their own initiative. Of these, three are active, The Brooks Bird Club, the Oglebay Plant Club, and the Wheeling Amateur Astronomy Club.

Teachers are assisted by the publication of nature pamphlets and by the personal cooperation and advice of the naturalist and his assistant, Charles K. Peck. This assistance is also available for any group whose program includes nature. It ranges from personal advice and help with planning exhibits to the leading of special nature field trips.

Grade school students, high school students, and adults newly interested in nature may receive a rather complete background knowledge of nature from attendance in the winter series of nature classes held twice weekly at the Institute Downtown Center. These classes, consisting of about thirty-five meetings, cover varied phases of nature study.

Of greatest public appeal are the nature field trips. These "bird-walks," as they are popularly called, are held each Sunday morning at 7:00 o'clock during the summer, and at 2:30 P. M. in the winter

The nature program of Oglebay Institute, developed over a period of ten years by A. B. Brooks, Institute Naturalist, and his associates, is designed to reach as many people as possible of different age groups and varying interests in nature.

By JOSEPH E. HOFFMANN
Publicity Staff Member

months. The charm of the early morning air, and the walk through the clean bright woods with an open-air breakfast waiting at the end of the trail bring out many who are not nature enthusiasts but who only have a respect for the out of doors. These very people often develop into the most ardent of the nature trailers. Following the winter afternoon walks, informal discussions are held around a roaring open fire in one of the Oglebay Park log cabins. Coffee and popcorn are served.

Even the much-shunned skunk comes in for a share of attention at Oglebay Park's Trail-side Nature Museum!



Attendance of summer walks varies from fifty to two hundred and fifty persons, and winter walks average around thirty.

The ten miles of nature trails in Oglebay Park are kept in excellent condition. A nature guide booklet has been prepared and is available for those who wish to explore the trails alone, following numbered labels through the hills.

Another feature of popular public interest is the Oglebay telescope. An eight-inch reflector telescope was built by members of the Oglebay Amateur Astronomy Club and presented to the Park for installation on one of its highest hills. Weather permitting, members of the club, volunteers, and Institute staff members are on hand for weekly telescope nights. These nights usually occur on Saturdays after the public campfires, unless some event of astronomical importance warrants "special" observation.

The campfire programs, usually built around nature themes, feature community singing, speakers, movies on nature subjects, slides, readings and similar entertainment.

The Oglebay Arboretum, still in the planning stage, comprises one hundred acres of sloping hills and valleys that have been set aside for a garden of trees and shrubs. This is to be another important addition to the Oglebay Nature program. Definite steps include the organization of an arboretum committee, purchase of planting stock, and cooperative efforts of the Wheeling Park Commission and Oglebay Institute for the employment of a landscape architect and an arboretum expert.

The lecture series spon-



Hikers on a nature trail in Oglebay Park come upon a wood thrush's nest

sored by the Nature Department usually occur during the winter months. Appearing on these programs are explorers, travelers, and authorities in field of nature lore.

The 1940 session of the Nature Leaders Training School will be held June 12 to July 10. Two weeks of the session will be held at Oglebay Park, studying Carolinian

Life Zone forms, and two weeks on Lake Terra Alta, West Virginia, where the alti-

tude makes available to students the plants and animals of the upper Alleghenian and Canadian life zones. Recognition of the school this year provides for the accrediting of courses in field biology by the West Virginia University. Students qualifying for credit must enroll for the full term. Those not desiring credit may enroll for full or part time.

The best instruction possible is provided the students. Twenty-five experts are brought to the camp to teach at least one class in their specialized subject. Eleven of these men will be at the camp part time. A staff of four will be on full-time duty. These will be A. B. Brooks, School Director; Charles K. Peck, assistant naturalist; Col. Robert P. Carroll, Botanist at the Virginia Military Institute, Lexington, and Dr. John C. Johnson, zoologist, West Chester, Pennsylvania.

Another phase of co-operation will begin this spring when the Ohio County Board of Education and the Wheeling Garden Center sponsor a school gardening project modeled along the lines of the established Cleveland school gardens. The Nature Department of Oglebay Institute and Oglebay Park will serve as advisors in this project.

"If we were asked just what birds mean to us, many of us would say that they mean the freedom of open spaces—wide skies and untouched forest depths. Others would remember the rapture of the dawn chorus, or the simpler but equally moving beauty of the everyday songs and calls of the birds they have known from childhood. . . . To nearly everybody birds mean something beyond and outside themselves, a part of the mystery and poetry of nature, and so we need not wonder that from the earliest ages birds have had their place in myths and in religions in various parts of the world."—Margaret McKenny in *Birds in the Garden*.



Courtesy Audubon Nature Camp

Let's Go Exploring!

By DOROTHY A. TREAT
Junior Club Secretary
National Association of Audubon Societies

"THESE THINGS are real. You can't find them in books. We found it out ourselves — outdoors," said our small host, pointing with pride to some charts which were part of an exhibit.

It is about such "real" nature study that this article is concerned. Observing how living plants and animals live and depend on each other makes a very different and much more challenging and interesting type of nature study than the passive second-hand variety gleaned from picture books.

Let's take an adventure hike! Let's go exploring! Let's make discoveries! Such invitations as these tend to engender the kind of attitude towards a field trip that can make everything fun and interesting. It also permits the field trips to be easily adapted to whatever situation chances to be at hand. Nature study needs to be opportune. No one can predict what may be seen next: a spider may be building its web or snaring its luncheon; the ants may be holding a wedding; a Robin may be putting on its raincoat — its overcoat; a grasshopper may make a tremendous leap or spit "tobacco"; a flower may be opening; one might find the handsomest bug, the ugliest, the largest, the smallest; or one might discover a bird's nest or a mouse nest.

Such things may be the find of a lifetime and very likely will be the first sight of its kind for many in the group. There is always something new to be seen when living things are observed, however, often similar ob-

servations may have been made before. Time should be taken to watch and enjoy these events and discoveries.

Adventures may be had in one's own house, the backyard, a vacant lot, a city block. Many forms of life reside close by although often they are unobserved unless one looks for them. It is unnecessary to journey long distances to observe events in the out of doors.

No plant or animal can live all by itself. It lives with and because of other plants and animals—its neighbors or predecessors. Observing and discussing how the out of doors is all linked together provides an inexhaustible storehouse of interesting and surprising matters.

To those leaders who do have great enthusiasm for the out of doors and curiosity about the things they find there, but terror in the thought that they do not know names of the animals, the following remedy is suggested for that inevitable question "What's this?" Remember that no one person knows the names of all the varied things to be seen out of doors and that many of these things do not have common names anyway. Most common names were invented by amateur observers.

Let the group together make up a good descriptive name to use as a temporary name. Later try to find the real name. This method will serve to sustain the interest which prompted the initial question.

To awaken and develop

The 1940 sessions of the Audubon Nature Camp will be held on the following dates: June 14-17; June 28-July 11; July 12-25; August 2-15; August 16-29. Detailed information regarding the Camp, the Junior Clubs, and the educational literature issued is available from Department J, National Association of Audubon Societies, 1006 Fifth Avenue, New York City.

interest in one's own environment serves two ends. It creates for the individual a healthy and entertaining hobby which can be carried on anywhere. It fosters a desire to protect and to use our natural environment in such a way that we shall always have it and this is Conservation.

Junior Audubon Clubs

In the interest of conservation, the National Association of Audubon Societies has for the past twenty-nine years been sponsoring Junior Audubon Clubs throughout North America. These clubs consist of ten or more children of any age banded together for the purpose of exploring the out of doors. Their program is of their own making, according to their age and ability, their geographic location and the interest of the adult advisor.

Each child in a Junior Audubon Club pays ten cents a year club dues, which is forwarded to the National Association of Audubon Societies, and receives in return a bird button, and six four-page leaflets with color plates and outline drawings for coloring. Although the leaflets are about birds, they tell how the bird lives and relates the bird to its environment. Over five and a half million children have been enrolled in these clubs. By way of maintaining contact with the clubs, a four page children's paper, largely written by the children, is sent every club four times each school year. Larger clubs of twenty-five or more members also receive the magazine, *Bird-Lore*. A special endowment enables the Association to supply these materials.

As an aid to teachers and recreational leaders helping with these clubs, special pamphlets have been prepared on such subjects as feeding birds, birdhouses, forests, grasslands, water and how wildlife depends on it, soil and how life depends on it, nature trails, small museums, building a nature interest, correlation of nature program with school work and others.

The Audubon Nature Camp

To help teachers and leaders go exploring, the Audubon Nature Camp for adult leaders was established four years ago at Muscongus Bay in Maine. The camp is conducted *at cost* by the National Association of Audubon Societies for the purpose of promoting conservation through special training of teachers and recreational leaders in outdoor nature study. The camp is located on an island comprising 330 acres of virgin spruce

forest known as the Todd Wildlife Sanctuary. The wooded island, the fascinating marine life along its shores, the hardwood forest, meadows, ponds, streams, marshes, farms on the nearby mainland, and many outlying islands with their interesting colonies of nesting sea birds, provide unusual opportunity for observing living plants and animals in a variety of natural habitats.

Campers spend two weeks or more exploring in small groups different types of natural environment. All campers have in common a keen interest in natural history. Some may already have studied considerably in the field of biology. Some have never studied biology at all, but when the emphasis is placed on observation of living things, one's previous knowledge is not an essential.

In addition to experience in outdoor observation it is the purpose of the camp to provide practical suggestions for nature study in schools, clubs and camps and to help adapt these to each camper's needs through individual conferences between staff and campers. Persons from thirty-four states and four Canadian provinces have attended the camp during the past four seasons.

The outdoor begins just outside the window—let's have adventures—let's go exploring—any place at all.

"Nature is an exciting, adventurous journey of discovery into the world of plants and animals, rocks and minerals, the weather and the sky. Its expeditions and explorations disclose the interesting and important things about blades of grass, spider webs, hawks, paving stones, eroded hillsides, flight of birds, the majesty of the night sky. With 'watch living things live' as a password to nature, eyes are open wider on field trips, gardens are planted, and experiments with seeds and seedlings; trees are adopted, and caterpillars, pollywogs, pet dogs, or any one of a thousand other living things are watched.

"Nature asks more than that the adventurer bring home 'specimens,' learn ten trees, dissect an animal, or make a blue print. It gathers many varied experiences together to create a feeling of enjoyment and 'at-homeness' in the out of doors; it fosters growing hobby interests and finds room for wonder and enthusiasm, the spirit of adventure, and a spontaneous delight in discovery. It would reveal something of the order, bigness, complexity and majesty of the world of nature to those who adventure in it."—From *Adventuring in Nature*, by Betty Price.

Vocations for Nature Recreation Leaders

By WILLIAM G. VINAL
Director, Nature Guide School
Massachusetts State College

WHEN MRS. VINAL and I drove to the Twenty-fourth National Recreation Congress in Boston last October, we crowded three recreation students on the back seat. Although the three were going forth on the same adventure, I was impressed by the fact that each student was an individual. That, in itself, would be a commonplace discovery were it not for the fact that one might teach, even for a lifetime, as though mass education were the only road to intellectual salvation. These conflicting ideologies of the individual versus the mass involve basically the same combat that is waging between democracy and totalitarianism. On the one hand we hear such words as *freedom* and *individuality* and on the other *security* and *collectivism*. Significantly, the theme of the Recreation Congress was "Recreation—and the American Way of Life."

A brief analysis of each student may be presented as material evidence of the general conclusions just stated. It will be obvious why names are not used. One is an Eagle Scout and a camp leader of considerable experience. He decided to major in Botany and discovered that advanced courses which he took were largely pathology. He changed his major to recreation. He is managing editor of the campus paper and is in line to become editor. This student knows where he is going. He is bent on becoming a *journalist in recreation*. Whether this future job or profession will be in a newspaper office or in a recreation department does not matter. He believes that by ability and service one may create a job. His advisors have the same philosophy.

The girl student of the trio is another illustration of "as the twig is bent." She has a nine-year perfect attendance record at the Pittsfield Girl's League, volunteered as a worker in the Children's Department of the Berkshire Museum, and has been a camp counselor. She plans to be a *naturalist in a children's museum*.

The second young man is a major in economics but is exploring the course in "Public Relation in

A pioneer himself in the field of nature recreation, Dr. Vinal considers the problem of leadership in this new profession and tells of ten young people who are occupying unusual positions

Recreational Planning" as a side line. He desires to enter business, but he will be a more useful member of society if he realizes the need and problems of public recreation.

At the conference I met a former Nature Guide School student who is a priest by training. I recall that while he was a student he was studying the psy-

chology of birds. When he let it be known that he was going afield all the youngsters would follow him. He has been given time from his church duties to serve as a *state naturalist*. Is it not true that one's nature hobby may become his profession?

Perhaps the most classic example of a nature-minded individual who couldn't be deviated from the straight but narrow trail was a certain young man in the Chicago Recreation Department. He was about to be fired for inefficiency. As a last resort he was allowed to try his "absurd idea" of *directing a bird sanctuary* within the city limits. Twenty acres were set aside. Today he has more visitors with loaves of bread to feed migratory wild fowl on a Sunday morning than he had in the audience when he dedicated the sanctuary.

By inherent interest, by the fortune of training, by native ability, by willing service, each of these individuals is evolving a profession in nature leadership. In no case is the financial measuring stick being applied to the proposed career. Most college curricula do not show such a route. However, these goals would probably not be obtained without college science training. It is more than significant in these days of educational panaceas, plus the penalties of tightening purse strings, and the conscientious desire on the part of the students to discover a niche in this changing civilization, that we analyze the aims and technique of leadership training. We must also be prepared to answer the questions—"How long does it take to prepare?" "Where does the training take one?"

The National Recreation Association may be said to have undertaken the promotion of nature recreation in September 1935. The activity was then placed on an equal footing with dramatics,

music, and handcraft, and courses were given all over the country in nature leadership. That the Society of Recreation Workers of America at the Boston Meeting unanimously voted to give special attention to nature activities during the coming year indicates the growing interest in this field.

The new opportunities which are reshaping the thinking of students of today will inevitably leave their impression upon the college curriculum. In this connection I am describing some new fields of nature recreation that were entered as recently as last summer. In these instances I will use names.

Bob Cole in 1939 received appointment as *park nature guide* at the Mount Tom Reservation on the Connecticut River. According to Edward L. Bike, recreation director of the New England Division, National Park Service, this was a demonstration experiment for the East which might be duplicated in many state forests. The first council fire was lighted on Memorial Day evening May 30, 1939. Besides being responsible for a camp fire each Sunday night for the next four months, Bob Cole maintained a self-guiding nature trail and led nature hikes at regular intervals. The year's total visitors to the reservation exceeded 200,000 and Hampden County Commissioner, Charles W. Bray, Chairman of the Mount Tom Reservation Commission, hopes to make this kind of service available throughout the year.

The day after completing his work at Mount Tom, Bob Cole was to be found at the Northfield Inn as *hotel nature guide* and instructor in winter sports. It is interesting to note that one of the leading New England hotels has placed nature recreation alongside of golf, boating, and winter sports as a service to its guests. Other hotels are watching the experiment with keen interest.

Elliot Wilson, in 1939, was *geologist-naturalist* on a trek for boys to the American Southwest. The expedition was commissioned by the Indianapolis Children's Museum and the American Museum of Natural History of New York City. Each boy joining the expedition had a special interest in some phase of natural history such as rocks, reptiles or Indians. The expedition was an auto-caravan trip with a base camp known as Cotton-Wood Gulch, in the Zuni Mountains of New Mexico. The Log of the Expedition is a collection of notes and photographs by the boys. It has the freshness of approach that we look for in the travels of a Marco Polo, or a Darwin, or a Beebe, or an Admiral Byrd. Exploring cliff dwell-

ings, Aztec ruins, fossil clay beds, old Spanish Missions, or Carlsbad Caverns, are forms of nature experience outside the textbook. El Wilson considered his summer's experience more enriching and more meaningful than a year at college. He will return as a guide to the fifteenth expedition to be held in 1940. And undoubtedly that fall he will thread another bead to his chain of understanding. Once infected with the germ of nature leadership—always infected!

In June of 1939, Frank Kingsbury and Bill Nutting started on a trek with a Conservation Truck which was a pullman, diner and museum in one. They visited camps and county fairs throughout the Commonwealth. When at camps they conducted nature hikes, gave talks, held conferences, and between times opened up the traveling treasure-chest for interested visitors. The project was financed by the Massachusetts Conservation Council through the sale of Wildlife Poster Stamps issued by the National Wildlife Federation. As *itinerant conservation preachers* they covered some 3,000 miles and about fifty organizations. The journeying will be resumed in 1940.

Leslie Clark was chosen as *camp pioneer nature man* at Hi-Catoctin Camp, which is provided for Federal employees and their families. The camp is located in the Catoctin Mountains, Maryland, and is operated by the Federal Camp Council, an organization representing government welfare, recreational and employees' organizations. Besides bird and rock lore hikes the families had talks, forums, and studied forests, scenic beauty and constellations. The group consisted of various age levels and interests.

To conclude: Educators cannot but believe in nature recreation. The youth leaders of America can and will enjoy the fuller life that nature recreation will point out. Capable leadership is needed to provide the enthusiasm and skills of nature recreation. The only way to learn to lead is by leading, which implies a willingness and desirability to serve others. There must be an unselfish capacity for friendship. There must be a scientific attitude toward the problems of leadership. The spirit of adventure, outdoor "poise" (ability to fit into outdoor moods), a ready command of English, broad natural history knowledge, and likeable personality are also common denominators. Given these things, with opportunity, and the born nature guide will possess the fruits that have been enthroned within his heart.

WORLD AT PLAY

Young Scientists Hold Exhibit

IN THE April, 1939 issue of *Recreation* an article was published telling of the Science Clubs at Elizabeth Peabody House in Boston. On February 24 and 25, 1940 these young scientists from seven to eighteen years of age demonstrated at their sixth annual Science Fair at Elizabeth Peabody House many homemade inventions constructed mainly from home and laboratory scrap materials. The exhibits were divided into three groups—biological sciences, physical sciences, and engineering. Emphasis was placed on the relationship of these fields of science to daily life. Materials from industrial, scientific, and governmental agencies were utilized as aids in scientific instruction. The 150 boys and girls who made the exhibits were on hand to demonstrate them. The exhibits included working models of the Panama Canal, a wind tunnel which tests model airplanes, a demonstration of soilless agriculture by a fifteen year old boy, and other interesting projects. As a result of last year's fair, fifty-three boys were invited to exhibit their projects in the Junior Science Hall of the New York World's Fair.

Science Hobbies in Schools

THE LOS ANGELES City School District has issued a booklet entitled "Science Hobbies, a Teacher's Guide for Junior High Schools," intended for the use of the teacher in stimulating hobbies and providing the necessary source materials. It was prepared by a committee of teachers in the Los Angeles schools. The booklet contains an exhaustive list of science hobbies and describes twenty-two of them, giving in each case sources of printed materials which would be helpful to interested students. The descriptions include hobbies connected with gardening, trees, flowers, insects, minerals, stars, pets, and birds.

Taxidermy Club Popular

IN THE FALL of 1937, at the request of several boys in South Bend, Indiana, a taxidermy club was organized. The primary object of the club was to interest the boys in the various

phases of animal life and to teach them to preserve rather than destroy it. Since that time the club has grown from eight to thirty members. Nature study hikes are conducted and different species of animals and insects are captured. They are brought to the center and the members, who are quite skilled, mount them.

Hiking Groups in Detroit

IN OCTOBER, 1936, the conservation editor of the Detroit, Michigan, *News* proposed the organization of hiking groups throughout the city and announced a hike through Rouge Park for anyone who cared to come. He expected about one hundred to turn out, but more than 2,100 came. Immediately five permanent hiking groups were formed. Health and exercise is stressed, but the hikers visit historic sites; they study birds, trees, and flowers; they trace shore lines of prehistoric lakes and pick up rock containing fossils; and they make friends. Since the first hike three years ago, the enthusiasm of the hikers has increased; and in the place of the original five groups, there are now thirty-nine groups of Detroit people who participate in these Sunday afternoon hikes.

South Contributes to Winter Sports

WHILE the North provides the setting for outdoor and indoor ice and snow sports, the forests of the South supply materials which go into the manufacture of skis, toboggans, sleds, and hockey sticks while an introduced grass, the bamboo, furnishes the ski sticks. Southern hickory, ash, and pine are used in the manufacture of skis, and one of the large ski factories is in the South. Selected hickory and ash logs are exported from South Atlantic and Gulf ports to a number of European countries to be used in the manufacture of ski equipment.

Fishing at Long Distance

THE Long Beach, California, Fly and Bait Casting Club last year participated in a novel inter-club contest. Officials arranged a match with the San Francisco club, and the mem-

When Father Was Only Half There —

It was the year 1875 or thereabouts, and Father went to school. He was all there then, but half of him was ignored.

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* * * * *

Today, teachers and others in charge of the physical and mental development of the young, realize the importance of developing the *whole* child. "Activities" is the word they use to denote the application of knowledge to experience. Activities catch and hold the child's interest, give him an outlet for his desire to do things, enable him to *learn by doing*.

* * * * *

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bers of each club used their own local casting pools. Short-wave operators in Long Beach and in San Francisco broadcast results after each casting attempt, and although the competing anglers were five hundred miles apart, the contest was carried on as if it had been conducted at a single pool.

Learning About the Stars — "Field nights" after playground hours, conducted with the aid of the Royal Astronomical Society, gave the children on Hamilton, Ontario, playgrounds a special opportunity to learn about the stars. In its annual report the Playground Commission concludes that the interest evinced by the children warrants continuing the classes next season.

Garden and Flower Courses at the Westchester Workshop — The Westchester Workshop in the county center, White Plains, New York, announces two classes on gardens and flowers under the direction of Mrs. Julia A. Latimer, author of *Inside My Garden Gate*. "Practical Gardening," which began March 20th, will meet two mornings a week. The first five lessons will be given over to the problems of soil cultivation, planting and feeding the seeds, pruning, and similar subjects. The last five will have to do with the layout of the garden, what plants to use, and where to use them. Garden consultation is included in the course for advice of soil, layout, the type of flowers and cultivation suitable to the needs of each member of the class. Mrs. Latimer will also give a series of six lecture demonstrations on flower arrangements. This class, which began March 19th, will hold two sessions a week.

The Library Journal Issues a Garden Number — Recreation workers will be interested in knowing that the March 15th number of *The Library Journal* is a garden issue containing much of interest to recreation workers. Outstanding articles include "Garden Books of the Past Twelve Months," by Elizabeth C. Hall; "The Amateur Gardener's Library," by Sydney B. Mitchell; "Books in a Gardening Community," by Mrs. Anne J. Rymer; and "A Children's Garden in the City," by Ellen Eddy Shaw. One section is devoted to an illustrated presentation of selected garden books, and here are listed new and standard titles appropriate for Garden Book Week, April 1-6, 1940. The recreation director who is

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seeking to keep his library up to date on all phases of recreation cannot afford to be without this issue.

The editorial and general offices of *The Library Journal*, which is published semi-monthly from September to June and monthly in July and August, are at 62 West 45th Street, New York City. Single copies may be secured at 25 cents each.

More About National Music Week—In connection with National Music Week to be celebrated this year from May 5th to 11th, Mr. C. M. Tremaine, Secretary of the National Music Week Committee, requests that recreation workers planning to participate in any way be careful in their notices to the press to make specific mention of Music Week. There are, he suggests, two reasons for this. One is that if this is done the clipping bureau will catch the items and the Committee will be in a better position to know to what extent the week is being publicized. The second reason, which is more important, is that recreation workers will derive greater benefit by associating their programs with the national observance at a time when the country's attention is focused to a larger extent than usual upon the importance of music to the individual and the community.

Recreation workers will find it helpful to secure the material issued by the Committee at 30 Rockefeller Plaza, New York City.

Librarians Meet—The thirty-second annual convention of the Special Libraries Association will be held in Indianapolis, Indiana, June 3-6, 1940. "Utilization of Resources" will be the theme of the convention program which will cen-



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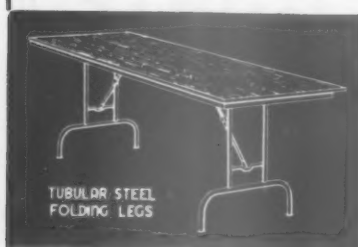
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ter about the association's slogan, "Putting Knowledge to Work." A pre-conference trip to southern Indiana parks has been planned for librarians attending the American Library Association Conference in Cincinnati the previous week, as well as the Special Libraries Convention in Indianapolis. Further information may be secured from Miss Eleanor Howard, Federal Reserve Bank, Cleveland, Ohio.

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Children's Gardens

"OUR WREATH this month goes to the National Recreation Association which has recently set up a Garden Service to provide material and technical help in the organizing and development of children's garden programs. Once a child catches on to the fun of gardening, the habit is apt to stick with him throughout life. Especially is this work being carried on in neighborhoods that apparently lacked space for gardens and among people who have never been introduced to the recreation possibilities of gardening. More power to any movement that will make our wilderness slum lots and our waste places blossom with the rose and cabbage!"

This quotation from *House and Garden*, March 1940, refers to the service recently inaugurated by the National Recreation Association which is devoted to the fostering of garden projects in the hope that gardening opportunities may be afforded to more and more people, especially children.

Recreation workers have long recognized the important part that gardening plays in the leisure-time activities of people. Its recreative value under present industrial, social, and economic conditions can scarcely be overestimated. But in spite of the efforts of many organized groups to increase the opportunities for gardening there are still millions of people who, because they lack space for a garden or because they have never been introduced to the recreational possibilities of gardening and the contribution it has to make to a richer life, are denied the opportunity. It will be the function of the Association's new service to lend support to groups now providing garden programs for children and adults and to give what encouragement and guidance it can in organizing new programs, training prospective leaders, and furnishing program materials. The Association is making available the services of a garden specialist to give assistance in organizing garden programs and in training leaders. Bulletins on children's gardens and, from time to time, printed material will be published for distribution.

A garden manual entitled "Gardening—School, Community, Home" prepared by the National Recreation Association to indicate methods of organizing community garden programs is now available. The manual discusses the place of schools, parks, and recreation departments in developing children's garden programs. It surveys the place of other semi-public and private organi-

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zations which now carry on garden programs. Ways in which all community forces may cooperate in increasing opportunities for gardening experiences are also considered.

Last year Miss Frances Miner, on leave from the Brooklyn Botanical Gardens, acted as Field Secretary on Gardening for the National Recreation Association. During that period Miss Miner gathered a great deal of material on existing children's gardens. This material has been studied to determine the kind of effort most successful in establishing gardening as recreation. Much of this material has been incorporated in the manual.

Nature Education in the Pittsburgh Parks

(Continued from page 42)

as covered nature trails. The displays are labeled with information concerning the relationship of man to that particular animal or plant, whether beneficial or harmful. With rare exception all displays concern nature materials native to the park or the region. During the past few years collections of living animal and plant life have been added to supplement conventional types of exhibits. Many of the animals are tame enough to be handled, thus adding to their teaching value. Many visitors attracted into the parks for their first visit by these museums have become enthusiastic in their interest in the parks.

Nature Trails and Wildlife Sanctuaries

In addition to a well-organized adult and children nature program the nature education staff serves in other capacities. Many miles of nature trails have been labeled for the convenience of the park visitor and student. These labels have aroused the interest of trail walkers and have caused many to visit the museums and ask questions.

Under the supervision of the naturalist, each of the large parks has in part become a wildlife sanctuary. Wildlife feeding has become a very important phase of the naturalist's duties and it has resulted in a greatly increased bird and animal population. Over a hundred different species of birds have been reported in the three largest parks in the city. The numbers have increased to such an extent that people living on the edge of the parks are reporting more birds are visiting their backyards. Many a walker has been initiated into

Schools of the Out of Doors

(Continued from page 22)

the spring recess. Courses offered in nature games and methods, bird-study, flowers, trees, rocks, land-forms, and insects and related animals. Tuition: \$12. Prof. P. Victor Peterson, San Jose State College, San Jose, California.

Pacific Union College Field Nature School. An itinerant field school, with headquarters in Angwin. Four-week session, every even year, beginning about the first of July. Course offered in nature study methods combined with field experience in biology and ecology. Total cost: \$60. Prof. Harold W. Clark, Pacific Union College, Angwin, Napa County, California. (Prof. Clark is also director of the *Walla Walla College Field Nature School*, an itinerant school with headquarters in College Place, Washington, and which is conducted every odd year.)

Santa Barbara School of Natural Science. Santa Barbara, California. Two-week session, beginning about the second week of August. Courses correlated around the integral theme of conservation. Tuition: \$12. Prof. Harrington Wells, Santa Barbara State College, Santa Barbara, California.

Nature Enjoyment Camp. Cuchara Camps, La Veta, Colorado. One-week session, beginning about the second week of June. Course offered in nature enjoyment. Total cost: \$11. Paul W. Nesbit, Walsenburg, Colorado.

nature appreciation by a friendly squirrel who begged for a hand-out.

It must be realized that this brief article is merely a background and short sketch of the Pittsburgh Bureau of Parks' nature education program. The most important duty of the naturalist is the making of contacts with the youth of the community. Through the medium of field trips boys and girls have been taught how to use the parks. The adult program has interested many people in nature as a hobby. Today, through the work of the nature program, despite increased use of the parks, the attitude of the public is improving—they use but do not abuse.

The Nature Program at Our Camp

(Continued from page 13)

ivy and poison sumac, or leave our axe helve or moccasins within reach of the porcupine, at our own risk. These things we can rightly expect our campers to learn if they wish to adventure forth on wilderness trips.

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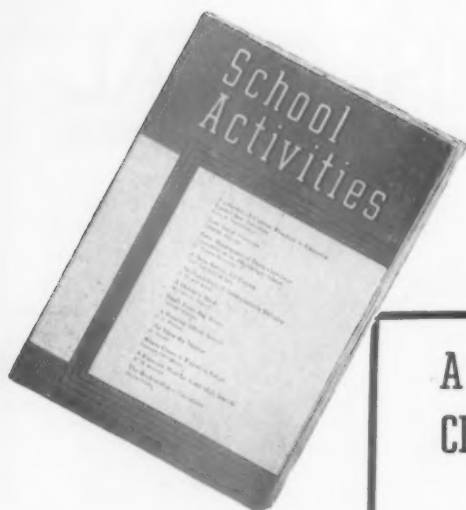
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Of course, there are many "methods" which can aid us in introducing our camper to the natural world round about. There are nature crafts and nature games, nature trails and nature gardens, vivaria and aquaria, museums and zoos. But we must be careful not to let the method obscure the objective! Making a fire-by-friction set can be only a woodworking project, or it can be a fascinating adventure involving much nature knowledge. We must have balsam fir or white cedar for the fire board and drill, a maple burl for the socket, a yellow birch limb with just the right curve for the bow, a buckskin thong for the bow string, shredded cedar bark, fine dry grass and tissue thin birch bark for the tinder, and then there is the magic of drawing forth fire from the heart of the tree!

The "scout report" as developed by that master of woodcraft, Ernest Thompson Seton, is one of the most effective methods of keeping everyone's eyes open and encouraging more accurate "seeing." At the daily assembly or evening campfire, we regularly devote a few minutes to "scout reports." Then any camper or counselor who has observed some unusual nature happening reports it. Much of the success of this technique depends,



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of course, upon the skillful questioning or additional interpretation which the leader provides.

The Campers

In the final analysis, it is the children's interests and enthusiasms that determine the "nature program." Here we have treated of the staff and the natural environment first only because they play such a fundamental role in influencing the campers' interests and enthusiasms.

Fortunate are we when children arrive at camp with interests or hobbies that we can use. It makes slight difference whether the interest is in fishing, gardening, sketching, making fire-by-friction, building lean-tos, stocking aquaria, keeping pets, or playing Indian. Any of these will provide an excellent foundation on which to build a good nature program for the individual, provided there is a skillful, understanding counselor at hand to guide these interests on and out into related fields.

Leaders sometimes become discouraged because some children, confronted repeatedly with beautiful sunsets, splendid vistas or starry nights, pass on apparently unaware of them. It is the duty of the leader to bring children into contact with the

interesting and beautiful in nature as often as possible and, without over-sentimentalizing, call it to their attention. When this is done there comes a time eventually when these phenomena suddenly register. Grown up campers of former years often make statements such as "Do you remember the sunset we saw over Ragged Lake Mountain and the way it was reflected from the lake as we hiked back around Parson's Knob? That was the first time I ever saw a sunset!"

We want to build in our boys and girls an understanding of the laws of nature. Eventually we hope they will learn that love of country by a good citizen means, among other things, cooperation with an intelligent care of our forests and grass lands, our soils and waters, our mountainsides and marshes, and of all that dwell therein.

Recreation in the National Forests

(Continued from page 19)

need, low rent organization camps are being developed in the national forests. Such camps are being designed for use by groups whose vacation is made possible through public or organized aid,

and by Boy and Girl Scouts, Camp Fire Girls, and similar groups. In some forests, religious and social welfare organizations with Forest Service cooperation have already constructed and are operating a number of similar camps.

The Ten Regions

To give the most effective service to the public in the transaction of national forest business, the country has been divided into ten regions, with regional foresters in charge, under which are grouped the national forests. Each national forest has a supervisor. The forests are divided into ranger districts which average nearly 300,000 acres, with a forest ranger in charge of each.

Those wishing to take advantage of the recreational opportunities of the national forests should get in touch with one of the ten regional foresters in the continental United States and Alaska. A letter addressed to him will bring a prompt reply to any questions about accommodations, seasons, special regulations, state game laws, or any other matters. Information concerning a certain section of the country is available from the regional forester who has jurisdiction over the national forests in the state where the recreation is planned. The following is a list of the regional foresters' addresses and the states in which their forests are located. Those wishing general information may address either the chief, Forest Service, U. S. Department of Agriculture, Washington, D. C., or the Regional Forester at any of the following locations:

Missoula, Montana—Montana, northern Idaho
Denver, Colorado—Colorado, Nebraska, Wyoming, South Dakota.

Albuquerque, New Mexico—New Mexico, Arizona.

Ogden, Utah—Utah, southern Idaho, Nevada, extreme west Wyoming.

San Francisco, Cal.—California.

Portland, Oregon—Washington, Oregon.

Washington, D. C.—Maine, New Hampshire, Pennsylvania, Vermont, Virginia, West Virginia, Kentucky.

Atlanta, Georgia—Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Puerto Rico.

Milwaukee, Wis.—Indiana, Illinois, Iowa, Michigan, Minnesota, Missouri, North Dakota, Ohio, Wisconsin.

Juneau, Alaska—Alaska.

The national forests are particularly heavily



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used by those who must find inexpensive recreational opportunities. So it may be stated that national forest recreation offers simplicity, harmony with natural environment, health and enjoyment for the many. That this has "customer-appeal" is attested by the steady increase in the number of those who come to these areas, where recreation is enjoyed on a vast scale without measurable interference with the use of all the other national forest resources.

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State Parks—Centers for Nature Recreation

(Continued from page 27)

indicated a desire to employ park leadership as soon as their budgets permit.

Other State Programs

In Tennessee a state naturalist has been employed. In Massachusetts a program demonstration at the Mt. Tom Reservation has been made successful through the assistance and cooperation of the Massachusetts State College.*

At Bear Mountain State Park, New York, the trailside museums, nature trails and nature program are known to everyone interested in nature recreation.

National Park Service and Leadership Programs

The National Park Service has conducted a successful interpretive program in the national parks for twenty years. The Bureau, in its cooperation with state authorities, has encouraged the promotion of similar programs on the part of state park departments. It is realized by progressive park and conservation leaders that qualified park leadership can be the medium of a greater understanding, a greater enjoyment, and a more likely preservation of our natural areas. It is through such leadership that the lives of the park using public can be enriched by an association with nature.

* Park and College Teamwork: The Regional Review, National Park Service. February 1940.

"Here Comes the Traveling Museum"

(Continued from page 6)

where from 3:00 to 6:00 P. M. Lunch was always cooked in the woods.

An Itinerant Museum

Our feature attraction on the visits to the playgrounds was the traveling museum. This was nothing more than an old car with the back seat removed to make room for our specimens. To aid in the proper display of the collections, a step-like set of shelves was built in the back of the car. On each circuit we attempted to have something altogether different in the museum, which was stocked with live, mounted and preserved specimens. After several visits we found it advisable to take the various animals out of the car instead of letting everybody climb all over the car

in an effort to see what was in it. Each time a playground was visited we discussed a different topic.

Snakes were the topic of discussion on the first circuit. Since there is always something fascinating or interesting about these most misunderstood vertebrates, we felt it would prove a most motivating introduction. Without a doubt it was sensational! After we had finished discussing the economic importance of snakes, ways of telling the difference between poisonous and non-poisonous snakes, what to do if bitten by a venomous snake, and many other subjects, there was no time left to answer all the children's questions. This feature proved popular with all age groups from six to sixty. On one playground a very elderly man, who had just recently gone blind, never missed our nature lore discussions.

To make our discussion more interesting we used two live timber rattlers, one large copperhead, two gartersnakes, one milk snake, one water snake, two DeKays snakes, a large pilot black snake, and a puffing adder. The poisonous snakes naturally attracted the most attention. The rattlers rattled so much that they wore their rattlers through! After the children learned that some of the non-poisonous snakes could be safely handled, I was kept busy watching them.

From that time on I was the *snake man*, not the nature specialist. If there were children standing on the street corners near the playground, when I was in their neighborhood, you could hear them call, "Here comes the snake man," and off they scampered toward my destination.

On the following visits we discussed birds, insects, mammals, wild flowers, trees, and pets, and on the last visit we worked on naturecraft. This included the making of plaster leaf and animal track casts, spatter prints, seed jewelry, bird houses, feeding stations, and strange creatures from various sized evergreen cones.

Nature Lore Week

In an attempt to make the children and adults more nature-minded, we set aside the fifth week of the summer as nature lore week. During this week, each playground held a nature story-telling contest at which each child told an appropriate story. Another feature of the week was a naturecraft exhibit on each playground. Some of our more resourceful leaders held this in connection with a short nature lore program one evening.

Publicity is very essential in "putting across" a



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Beauty and the Curriculum

AMONG OTHER of our natural resources which suffered severely in America's endeavor to conquer a continent as quickly as possible was the beauty of our natural environment. Beauty, of course, has always been at least an extracurricular activity at Vassar College. But a recent gift by an anonymous alumna has given beauty, the beauty of nature, a vital place on Vassar's curriculum.

The fund will make possible special work in four departments of the college. The departments of geology, zoology and botany will do special research in the conservation of the landscape and the department of psychology will attempt to determine the psychological values of the enjoyment of nature.

Students will be able in their senior year to undertake special problems on conservation. Students may also work toward a master's degree with a thesis on some phase of conservation. The studies will make a real contribution to the knowledge necessary to the conservationist and they will also aid in preparing the students for professional work in this field.

A prominent reason in the past for conservation has been economy, without too much stress on the human values to be gained from beautiful or attractive surroundings. At the same time attention has been given to the human values inherent in the appreciation of the fine arts. This new work at Vassar will extend the reasons for conservation and it also increases the number of appreciations which are recognized as having positive effects on people.

program of this type. With the cordial cooperation of our local papers we were able to publish several feature stories a week and many pictures of our special or unusual events. Instead of reaching only the playground public we were able to inform the general public of our program and extend its values.

Perspective in National Park Affairs

(Continued from page 11)

especially well prepared to preserve wildlife and generous portions of wildlife habitat. Unless action is taken now the country will lose forever many native features of flora and fauna which characterized the America of the pioneer settlers. Studies are being made to determine what can

still be restored and steps taken to preserve samples of nature's manifestations. Each type is given consideration; the great grasslands of the central plains constitute a special challenge; the desert in its varied forms is coming within the bounds of reservations; the cypress swamps of the south are being investigated for inclusion; the Arctic tundras are scrutinized and distinctive forest types, such as the Port Orford Cedar, are searched with the idea of establishing boundaries for protective purposes.

A division of land planning within the Service gives undivided attention to the coordination of investigative work and the selection of new areas.

Acting while there is still opportunity to acquire the areas for public use, the Service hopes to preserve within a reasonable time many of the natural and historic exhibits with which to tell the story of America. The interpretation of these varied phases of the American scene constitutes a program of enormous proportions. Here is a problem in education that has no exact parallel in the world.

Functions and Methods in National Parks Interpretative Work

I. Objectives

- A. Diffusion of knowledge.
 - 1. General promotion of conservation.
 - 2. Advance public appreciation of things American.
- B. Increase of knowledge.
 - 1. Preserve vanishing data.
 - 2. Conduct scientific investigation and research in history.

II. Methods

- A. Discover and preserve.
 - 1. Field and laboratory research.
 - 2. Make scientific and historic collections.
 - 3. Ecological restoration.
 - 4. Historical restoration.
 - 5. Publish findings.
- B. Exposition
 - 1. The exhibits program.
 - a. Central museums, focal point museums, trail-side exhibits, exhibits-in-place, nature trails, historic restorations, historic house museums.
 - 2. Trailside notes and guide books.
 - 3. Popular publications.
- C. General information and special instruction
 - 1. Popular lectures.
 - 2. Guided field trips.
 - 3. Auto caravans.
 - 4. Special schools or classes, public.
 - 5. Special schools or classes, in-Service training.
 - 6. Technical advice to administrative staff.
 - 7. Publications for Service use.
 - 8. Develop facilities for research.
 - a. Biological preserves, organized collections, laboratories, bibliographies and libraries.

Articles on Nature Activities in "Recreation"

ALTHOUGH THERE has never been an issue of RECREATION entirely devoted to nature activities, articles on the subject have appeared in the magazine from time to time. We are listing some of the most significant of these which have appeared within the past few years.

The Successful Nature-Garden Club.....April, 1935
by Karl H. Blanch

Suggestions for organizing school garden clubs

A Civic-Minded Garden Club.....June, 1935

The program of Cleveland's Garden Club

Home Room Gardeners—A Garden Club for Indoors

by Karl H. Blanch.....October, 1935

The Garden Center Institute of Buffalo.....March, 1936

by Mrs. Lloyd W. Josselyn

Nature Education, Social and Recreational..March, 1936

by William Gould Vinal

How may scientific information be applied to present-day problems?

Radishes and Roses.....May, 1936

The Children's Gardens at the Brooklyn Botanical Gardens

Nature on the Playground.....July, 1936

by Elizabeth H. Price

Nature Study as a Hobby.....October, 1936

by William L. Lloyd

The story of a marine museum

Yosemite's Junior Nature School.....January, 1937

by Reynold E. Carlson

A nature lore school for children

Enjoying Nature—What Does It Mean?....May, 1937

by Billy L. Bennett

Suggestions of ways of interesting children in nature

Some Adventures in Nature Recreation...October, 1937

Some of the activities being developed through the recreation program

San Francisco's Junior Museum.....October, 1937

Children's Gardens.....March, 1938

The March, 1938 issue, now out of print, devotes a great amount of space to children's gardens

A Recreation Museum for Juniors.....April, 1938

by Josephine D. Randall

Gardens for Recreation, by F. Ellwood Allen..April, 1938

A Sugar Bush Festival.....April, 1938

Description of a "sugaring-off" party

A Nature Program on a Playground.....May, 1938

Nature program on the Oakland, California, playgrounds

Overlook No Living Thing, by E. L. Scovell..August, 1938

Conservation as "a way of living day by day and hour by hour"

Science Indoors and Out, by H. Henry Platt..April, 1939

Boys' Science Clubs at a Boston settlement

The Newark Museum Nature Club.....August, 1939

by Edward B. Lang

To See What They Can See.....August, 1939

by Julia Anne Rogers



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Parties and Programs For Parents Days . . .

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Nature Experiences for All

(Continued from page 4)

membership includes many people with scientific interests.

In any review of nature programs an important place must be given to the various educational and conservation organizations that are active in this field. For many years the National Association of Audubon Societies has been an important leader in nature work for children and adults. The Isaak Walton League and the National Wild Flower Preservation Society are illustrations of two other organizations. The private organizations, such as Boy Scouts, Girl Scouts, Camp Fire Girls, and the Woodcraft League have for many years provided outing and nature experiences for their members. Their programs have been built on the normal interest of children in outdoor activities and in their curiosity about the interesting world in which they live. Organized camping was also developed by private organizations, the Y.M.C.A. having been one of the pioneer organizations in this field. Camps generally have a definite place in their program for nature. Through these organi-

zations throughout the year and especially during their summer camp period, millions of boys and girls have had first-hand contacts with nature.

In 1920 the National Parks began a naturalist service. This has been extended until today, through a varied program of lectures, field trips, auto-caravans, and museum services, it touches several million visitors annually. States, counties, and municipalities have followed this lead and each year has seen new naturalist services established in parks and reserves administered by these governmental units.

For children as well as adults, nature recreation programs have been offered by governmental agencies. The 4-H program sponsored by the Department of Agriculture makes a definite attempt to develop nature interests and to further conservation through them. The National Park Service and some state and municipal parks have inaugurated activities for children.

Recreation departments, on playgrounds, parks and in community centers, are increasingly including nature recreation as a part of their program. In some instances regular scheduled periods each week are devoted to nature activities. Hobby clubs are often organized around a general nature interest of some special interest such as birds. The program may center around a nature museum which may range from small bulletin board displays to a large museum such as the Marine Museum in Los Angeles with its thousands of specimens and its wide range of activities. Traveling nature displays are sometimes carried from playground to playground as a stimulus to interest in nature. Special activities such as hobby shows, flower shows, zoo days, pet shows are conducted. Nature crafts are often included in the craft or nature programs of playgrounds. Children's gardens have in some cities found an important place for themselves. Day camps as well as extended camps are now sponsored in some cities along with hiking, picnicking and outdoor cookery groups. These activities are but a few of the many directed by recreation departments from coast to coast.

There is every indication of a renewed interest by Americans in the natural heritage that is ours. We are seeing the need to conserve that heritage not only for the economic well-being of our people but for its tremendous recreation value in an industrial world. Organized nature programs are attempts to make available to those who may wish them experiences that will help them appreciate and understand the world in which they live.

New Publications in the Leisure Time Field

Birds in the Garden — And How to Attract Them

By Margaret McKenny. Reynal and Hitchcock, New York. \$5.00.

THIS DELIGHTFUL BOOK, which every bird lover will want to know about, gives complete information on how to attract birds to the garden, feed and care for them under all conditions, and get the most out of them not only in terms of song and beauty, but as protection against destructive insects. There are fascinating chapters on how to distinguish birds by their song; how to tame wild birds and make them pets; on bird migration, bird photography, and community bird sanctuaries. The volume is profusely illustrated with photographs and paintings in full color.

Working With Nature

By Eleanor King and Wellmer Pessels. Harper and Brothers, New York. \$1.20.

THE BOOK OPENS under the intriguing title, "What's Going on in Your Dooryard?" with a presentation of familiar, everyday creatures introduced in a new light. It is a book about the conservation of wild life, with a section devoted to insects which is most illuminating. "If we are going to become good conservationists," say the authors in their introduction, "we must be able to see that the true interrelationships between animals and between plants and animals are the basic foundations of the balance in nature. The insects are excellent subjects which illustrate this principle. Also, insects are close at hand and available for observation by every school boy and girl, and certainly there are no creatures to rival them in fantastic interest." The author has been highly successful in making the humble insect a most interesting creature. There are many photographs in the book.

Birdhouses

By Paul V. Champion. The Bruce Publishing Company, Milwaukee. \$1.25.

AN INTERESTING FEATURE of this book lies in the ingenuity of the author in suggesting household articles from which birdhouses may be made and in recommending materials such as orange crates and apple boxes if better supplies are not available. Construction directions are simple and easy to follow and are supplemented with clear working drawings.

The School Garden—A Laboratory of Nature

By Van Evrie Kilpatrick, A.B., A.M. School Garden Association of New York, 121 East 51st Street, New York. Single copies, \$75.

MR. KILPATRICK's long association with the school gardens of New York City and with the national movement to promote gardening has given authority to his presentation of *The School Garden*. Along with much detail and practical information on the organization and administration of school gardens and the why and how

of gardening. Mr. Kilpatrick has given us the historical background of the movement, particularly of the development of the School Garden Association of New York. Anyone interested in school gardening will find in this booklet a gold mine of information.

First Aid Afield

By Paul W. Gartner. The Macmillan Company, New York. \$1.50.

HERE IS A MANUAL which explains clearly and simply the equipment and practical knowledge that everyone should carry when he goes hiking or on field trips, hunting or fishing, swimming or boating. Mr. Gartner tells what to do in case of accident in the backwoods or mountain; how to improvise bandages, slings, and stretchers from crude materials; and how to use guns, fishing rods, or other outdoor equipment in taking care of broken bones. The second section of the book is devoted to common-sense methods of self-preservation in the water, and the treatment of accidents in boating and swimming.

Directory of Camps in America 1940

Prepared by Ross L. Allen. American Camping Association, Ann Arbor, Michigan. \$3.00.

CAMPS IN EVERY STATE in the Union and the District of Columbia, in the United States possessions, and in Canada appear in this listing of approximately 5,000 camps. The Directory should be of great value to many groups.

Play Gymnastics

By L. L. McClow, M.P.E. and D. N. Anderson, B.P.E. F. S. Crofts and Company, New York. \$3.00.

HERE ARE A LARGE number of very interesting and usable stunts—eight hundred and fifty of them to be exact—for forty arrangements of gymnastic apparatus. They are so clearly illustrated as to make them easy to organize into appropriate gradations of difficulty and easy to teach. There are profuse illustrations.

Bibliography of Swimming

Compiled by Frances A. Greenwood. The H. W. Wilson Company, New York. \$4.25.

A FEW YEARS AGO Miss Greenwood compiled an index on swimming under the title "Swimming, Diving and Watersports" which went out of print almost as soon as it was published, so great was the demand for it. Since that time she has devoted all the time she could spare from her work in the Department of Physical Education at the University of Alabama to revising, enlarging, and improving the compilation which now includes material published up to June, 1938. As a result of her research, the literature of four hundred years on swimming and related subjects—the earliest date is 1538—has been indexed in this comprehensive book of 10,000 titles and 608 subjects.

Report of the Chief of the Forest Service 1939.

Forest Service, U. S. Department of Agriculture.
Government Printing Office, Washington. \$.10.

It is exceedingly encouraging to read in the *Report of the Chief of the Forest Service* of the progress which is being made in the conservation of our natural resources. What is being done to preserve and use to the best advantage the country's forests, some of the problems which are being faced, and interesting facts about community, state, and Federal forests and the ways in which the Forest Service is meeting its responsibilities are discussed in this report.

An important use of the more than 175,000,000 acres of public land in the national forests, states the report, is for human recreation. "Millions of people come to them each year for an hour or a day or a series of days of rest, of relaxation, of inspiration, of seclusion, or sport." In 1938 more than 32,750,000 visits were made to the forests by people from every state in the Union.

How to Tie Flies.

By E. C. Gregg. Barnes Dollar Sports Library, A. S. Barnes and Company, New York. \$1.00.

You will find described here the methods of construction used by the professional fly tier which will enable you to make your own flies at home. In the first part of the book the tools, hooks, and materials used in fly tying are described and illustrated. Next the author tells you step by step how to make wet flies, dry flies, nymphs, bass flies, feather streamers, floating bugs, and anglers' knots. The book is concluded with standard dressings for 334 flies.

Rooms of Their Own.

By Emeric Kurtagh, George Stoney, and Walter S. Child. Henry Street Settlement, New York. \$.50.

Recreation workers all over the country have been hearing vague rumors of New York City's "cellar clubs" and have been wondering about them. Henry Street Settlement decided to find out the truth about these clubs, and three workers of the staff visited and studied twenty-eight clubs, twenty-two of which were found in cellars. What they learned about the clubs and what they mean to their members has been incorporated in a mimeographed bulletin of 79 pages. "The cellar clubs are with us," states the report. "They will be with us as long as they are the best answer the young people can find to their recreational needs. A good many social workers have come to realize this and are trying to work out ways of helping the clubs to improve—first of all, to regulate their status so the boys will not feel themselves suspected as criminal groups, and secondly, to form contacts with them that will make guidance and cooperation possible."

Training for Recreation.

By Dorothy I. Cline. Obtainable free from the University of Chicago Press, 5750 Ellis Avenue, Chicago, Illinois.

It will be valuable to have such a well-organized historical record as Miss Cline has given us of the development of the WPA program for the training of recreation leaders. The fact that many will not agree with all Miss Cline has written about recreation programs conducted outside the WPA will not detract from the value of the booklet as a historical record of recreational developments under Federal auspices.

Nature Encyclopedia.

Edited by G. Clyde Fisher, Ph.D., LL.D. Halcyon House, New York. \$2.95.

Formerly published under the title *Nature's Secrets*, this volume represents a complete nature library between two covers. Here under the general editorship of G. Clyde Fisher secrets in many fields of nature are dis-

closed by recognized authorities. There are sections on birds, mammals, fish, reptiles, amphibians, insects, spiders, flowers, and trees, each profusely illustrated. There is also an interesting chapter on "Color as Seen in the Animal World." "Bird Houses and Shelters" are the subject of another chapter. The text alone of this fascinating encyclopedia covers over 900 pages, and there are more than 500 illustrations.

The American Youth Hostels Handbook 1939.

Edited by Isabel and Monroe Smith. American Youth Hostels, Inc., Northfield, Massachusetts. \$.50.

The fourth edition of the handbook of the American Youth Hostels is a novel, attractively illustrated book of 130 pages giving information regarding the eight hostels sections of the country; data regarding hotels; directions for those traveling abroad; and a section entitled "Hostel Maker's Guide," which will be illuminating to those who are not familiar with the details of this rapidly growing movement.

Diversions for the Sick—Occupational Therapy.

John Hancock Mutual Life Insurance Company, Boston, Massachusetts.

This attractive little book, with suggestions for handcraft activities of various kinds, may be secured free of charge from the Life Conservation Service of the John Hancock Mutual Life Insurance Company in Boston.

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